FirstGlimpse

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DIGITAL IMAGING: pages 22 to 44
JVC's Everio GZ-MS230 Flash
Memory Camcorder p. 30

HOME THEATER: pages 8 to 21
Sharp's AQUOS LE810 Series
LED LCD TVs p. 8

COMPUTERS: pages 45 to 60
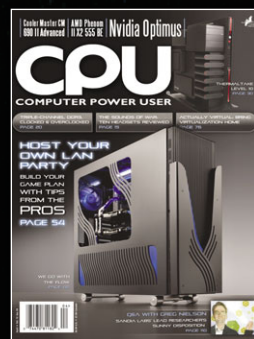Corel's PaintShop
Photo Pro X3 p. 45

PORTABLE DEVICES: pages 61 to 70
FLO TV Personal Television p. 61

April 2010 • Complimentary Copy

Top 5 Ways To Improve Your Audio & Video p. 26

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Table Of Contents • Volume 7 Issue 4

On Our Cover: Featured on this month's cover is Sharp's Quattron LE810 LED LCD TV ($1,899.99 to $2,999.99; www.sharpusa.com), Corel's PaintShop Photo Pro X3 ($99; www.corel.com), JVC's Everio GZ-MS230 Camcorder ($269.95; www.jvc.com), and the FLO TV Personal Television ($199.99; www.flotv.com).

45

8

30

61

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The Connected Home
Discover New Possibilities With Today's Technology

TODAY A WIDE VARIETY of digital devices and technologies work together to make all kinds of information available whenever and wherever you need it. Stream movies to your home theater; download photos from a relative overseas to a photo frame in your living room; or upload music from your MP3 player to your car. Whatever you want to do, there's a product out there to help you do it. Use this digital home blueprint to identify the types of things you want to do, and then go to the appropriate pages to learn about related products and technologies.

ce news

COMPILED BY ANDREW LEIBMAN

▶ Cell Services & Broadband Are Getting Cheaper

The United Nations' ITU (International Telecommunication Union) released a report on the falling costs of Internet access. Prices for mobile cellular and fixed broadband access have all fallen across 161 countries between 2008 and 2009 at a rate of 25% and 42%, respectively. Despite the worldwide recession, Internet and phone services usage has increased, led by strong growth in mobile cellular technology. By the end of the year, the ITU expects there to be 5 billion mobile cellular subscriptions. The report also points out that a handful of countries, the United States included, enjoy cheaper broadband access, paying under 1% of their gross national income for it.

▶ Windows 7 Gains Share Faster Than Vista

Windows 7 has been available for more than five months now, and, according to NetApplications, in that time it has sold twice as fast as its predecessor, Windows Vista. After the first four months of Vista's availability, it represented just 3.75% of all operating systems in use online, but in Win7's first four months, the new OS enjoyed a 7.5% share. NetApplications reports that after five months, Win7's market share had reached 9% and Vista's share had only reached 4.5% in the same timeframe. The analysts also noticed that personal usage of the OS is growing faster than corporate usage. Overall, Microsoft has a commanding lead on other software developers: Windows represents 92% of all operating systems online, 66.3% of which were Windows XP and 17.4% of which were Vista. Apple's Mac OS X had a share of just 5.1%.

m a r k e t p l a c e

Popular Mobile Phone Tasks

According to the Federal Communications Commission, 86% of American adults have a mobile phone, and at the end of last year, Forrester Research estimated that 17% had Internet-capable smartphones. The FCC study asked participants about the tasks they perform on their phones, aside from using voice services. A vast majority, 66%, said text messaging was at the top of the list. Another 52% use their devices for picture messaging. Web browsing and instant messaging tied for third place at 28% each. Mapping or directions, sending and receiving email, installing and running apps, and downloading or streaming music round out the rest of the popular activities with 27%, 26%, 20%, and 17% of users claiming they perform those activities.
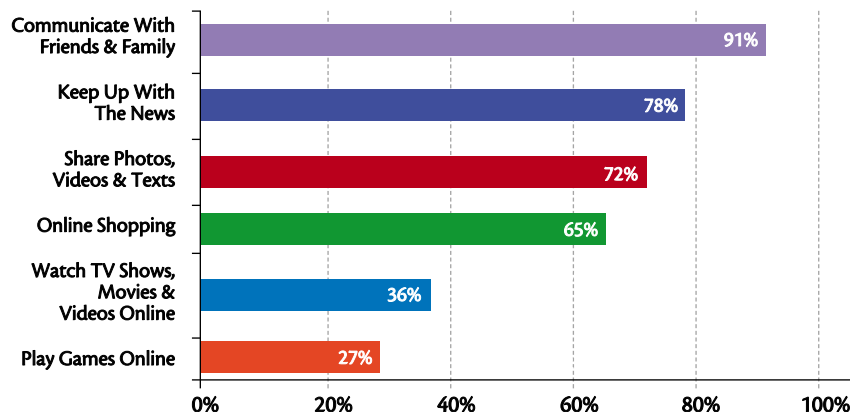
Source: Federal Communications Commission

How Are We Using Our Cell Phones?

- Text Messaging: 66%
- Picture Messaging: 52%
- Web Browsing: 28%
- Instant Messaging: 28%
- Mapping or Directions: 27%
- Email: 26%
- Apps: 20%
- Downloading or Streaming Music: 17%
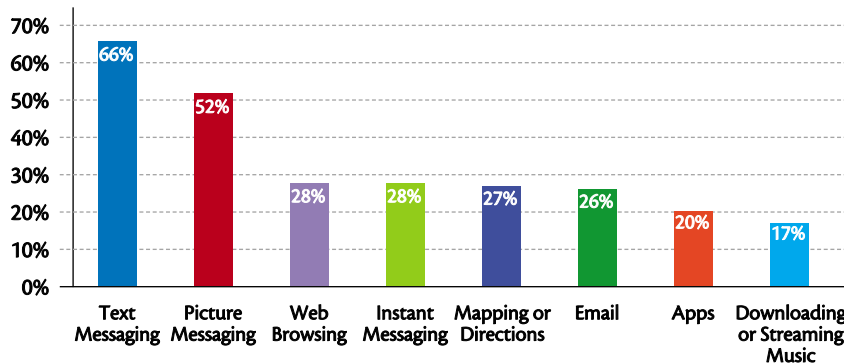
How We're Using Broadband

The Federal Communications Commission has released the results of its annual survey, which asked participants to rate the activities they perform with their broadband Internet. According to the survey, a majority of users claimed communicating with friends and family, keeping up with the news, sharing content with others, and shopping online were all important activities. However, watching TV shows, movies, and videos online and playing games online were not as important to broadband users.

Source: Federal Communications Commission

Important Activities For Broadband Users

- Communicate With Friends & Family: 91%
- Keep Up With The News: 78%
- Share Photos, Videos & Texts: 72%
- Online Shopping: 65%
- Watch TV Shows, Movies & Videos Online: 36%
- Play Games Online: 27%

FirstGlimpse

According to AT&T, just 2% of its mobile subscribers are responsible for 41% of the service provider's data traffic. A select few even hog up to 60GB of bandwidth per month.
Source: ThinkFemtocell

The Pew Research Center reports that 26% of Americans now read news on their mobile phones, while 61% of Americans get at least some of their news online, and 54% and 50% get their news via radio and newspapers, respectively.
Source: Pew Research

Casual game-maker PopCap Games reports that 24% of the respondents of its latest survey play social games, which represents a population of roughly 100 million in the United States and the UK. Most surprising is the fact that the average social gamer is a 43-year-old woman.
Source: PopCap Games

Retrevo's Pulse Report shows that price is still the biggest factor for motivating people to buy a new HDTV: 75% of the survey respondents said that a great price or deal would most make them buy an HDTV, compared to 11% and 10% who said events such as the Super Bowl and Olympics were the major factors that inspired them to take the plunge.
Source: Retrevo

Sharp's Quattron LE810 LED LCD TV Series

Vibrant Color With 4-Color Quad Pixel Technology

I f you thought HDTVs looked great before, consider how much better they would look if they added another set of colors to the mix. That's precisely what Sharp has done with its Quattron LE810 series of LED LCD TVs (prices vary; www.sharpusa.com).

Four Is Better Than Three

Other TVs build their pixel color palette with three primary colors—red, green, and blue—but the LE810 series TVs add yellow pixels to the mix using 4-Color quad pixel Technology. This lets the AQUOS TVs display colors that have never been seen before, such as deep yellows, golden hues, and ocean blues.

Additionally, the AQUOS LE810 series TVs feature a 1080p X-Gen LCD panel with 120Hz Fine Motion Enhanced technology, allowing you to see video with crisp detail and a 4,000,000:1 dynamic contrast ratio for deep blacks and bright whites. And although it may seem counterintuitive, the display is designed for optimal brightness

Sharp Quattron LE810 LED LCD TVs
LC-60LE810UN; $2,999.99
LC-52LE810UN; $2,299.99
LC-46LE810UN; $1,899.99
LC-40LE810UN; $1,599.99
www.sharpusa.com

with its UltraBrilliant Edge-lit LED backlight, but it meets the Energy Star 5.0 TV standards for energy efficiency—which aren't HDTV requirements until 2012.

Tricked-Out

The LE810 series has several other tantalizing features. With Sharp's newest version of AQUOS Net, you can stream on-demand HD content from a number

of providers, most notably Netflix, but you can also access Weatherbug, NASDAQ, NBC Sports, and Picasa, among others.

To meet your media playback needs, the LE810 series TVs include ample inputs, including four HDMI ports, a PC input so it can double as a computer monitor, and a USB input for photos and music. So if you want to use your screen to game online or connect your digicam to show off your latest photos and movies, you're in luck.

Available in screen sizes of 40, 46, 52, and 60 inches, the Quattron LE810 series TVs are brighter, offer more colors thanks to the 4-Color quad pixel Technology, and are incredibly thin. If it's quality features and superior video quality you're after, you'll want to add this gem to your home-theater room as soon as possible. **FG**

Colorful Features

• 4-Color quad pixel Technology adds yellow pixels to the usual mix of red, green, and blue to create more true-to-life colors

• Edge-lit LED TV offers high brightness yet meets Energy Star 5.0 standards

• AQUOS Net allows you to stream HD content, news, and weather. PC, USB, and four HDMI ports give you added flexibility to connect multiple devices

• Available in 40-, 46-, 52-, or 60-inch screen sizes

FirstGlimpse

HOW TO BUY

The Correct HDTV Screen Size

Consider The Room

Come home from an exhilarating movie theater experience, and you can be forgiven for lusting after a new HDTV that looks just as colossal as a cinema screen. But is bigger really always better?

At the risk of upsetting your living room *feng shui*, we'll go ahead and say that in many cases, it is. There's something awe-inspiring about a monster-sized screen, even if you're just watching the news. That said, bigger screen sizes cost more among TVs of a particular series. And when you turn off a large HDTV, it's hard to ignore the big, black rectangle overshadowing the room. Cutting to the chase, if you have a lot of space in the room and/or a long distance between your seat and the spot where the TV will go, consider buying a bigger TV.

Other viewers prefer quality over quantity—that is, they would rather pay more to get a better picture than to put the same amount of money toward the next larger screen size. Still others simply want a reasonably sized HDTV for a breakfast nook or bedroom where a home theater-sized display simply wouldn't do. In other words, if you won't be sitting far from the screen, and/or the room isn't very big, stick to the smaller screen sizes.
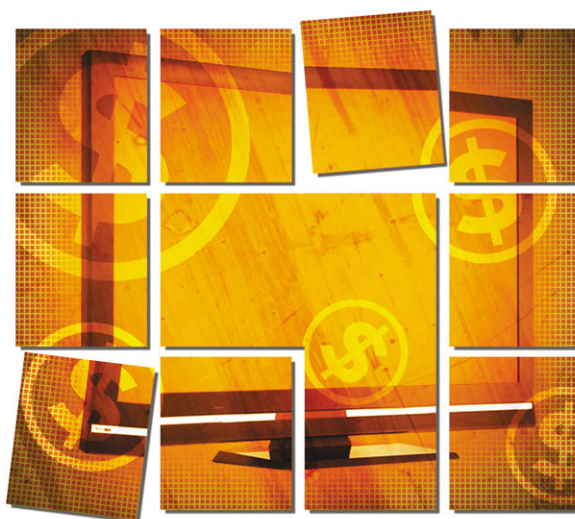
Size & Your Eyes

That said, size is somewhat relative. It's a curious fact that a TV that looks humorously small in an electronics store showroom will look more sizable in a typical living room. In a similar vein, a medium-to-largish screen can seemingly swell to an awkward size as soon as you bring it

home. If you need to buy a new TV that will fit inside your existing entertainment center, take note of each set's overall measurements.

Here's a tip to help you visualize what a 42-inch widescreen would look like in your home: Cut out a cardboard rectangle 37 inches wide and 21 inches tall. (TVs are sold by diagonal screen sizes, such as from the lower-left to upper-right corner.) A 32-inch screen is about 28 x 16 inches, for those who prefer a more modest HDTV, while a 55-inch display is approximately 48 x 27 inches.

Still undecided? Start your HDTV search with a screen size that's approximately half as long as the distance to your chair. Several AV experts agree that this basic guideline will get your shopping trip off on the right foot. ■

BY MARTY SEMS

Sizing It All Up

• At the end of the day, let your personal preference guide your screen size decision.

• A bigger screen is more at home in a larger room and/or with a greater viewing distance. For smaller screens, it's vice-versa.

• Some experts recommend dividing your viewing distance in half to determine your optimum screen size.

FirstGlimpse

3DTV

The Future Of Television

I f you're in the market for a new HDTV, consider yourself lucky. There's rarely been a more exciting time to buy one.

The rumors are true: 3D is indeed coming to the living room. Movie studios and electronics manufacturers are working together to make three-dimensional home-theater entertainment a reality.

You may have seen what current 3D filmmaking can accomplish in recent movies such as "Avatar," "Coraline," "Up," and "Cloudy with a Chance of Meatballs." Now, thanks to advances in HDTV technology, you can experience the same immersive rush at home.

A 3D Home Theater

The foundation of a 3D home theater is the TV. Manufacturers are starting to field 3D-capable widescreens among their top-of-the-line HDTVs. Although various display technologies are able to present 3D content, most of the recently announced 3D models are LCD TVs with LED backlights. These TVs are specifically made to complement the new Blu-ray Disc 3D specification.

A typical example of the new breed of 3DTV uses frame sequential display technology with special active shutter eyeglasses. With a high screen refresh rate, such as 240Hz, this type of TV is able to display alternating, slightly different images for the left and right eye when the user enables 3D mode by pressing a button on the remote. A wireless transmitter connected to the TV sends synchronization signals to a viewer's wireless, rechargeable active-shutter glasses, which use LCDs to alternately darken the right and left eyes in time with the screen.

The end result for a viewer sitting about four to ten feet from the TV is a very convincing 3D effect at up to Full HD 1080p resolution. Additional pairs of glasses for other members of the household will become available. As streaming movie downloads (for Internet-connected TVs) and broadcast programs (possibly debuting next year, according to Sony) embrace the technology, you'll soon be able to have asteroids rolling into your living room and superheroes zipping through your home theater.

Available 3D Content

3D content is already starting to become available on disc. New 3D BDs go hand in hand with 3D-compatible BD players (see Sony's BD players and home-theater systems on page 11) and computers. Likewise, certain game consoles that play BDs will also be upgradable to support 3D movies and video games as they appear. Most players and game consoles will require firmware updates to implement 3D support; BD- and 3D-compatible computers may need software updates.

You'll get the most dramatic, in-your-face results with content that was originally produced in 3D, of course. However, your 3D-capable HDTV may be able to add some visual depth to 2D content such as sports and non-3D movies, too. Although the three-dimensional effect won't be as pronounced as with movies, shows, and games originally shot or created in 3D, 2D upconversion can help you feel more a part of your home entertainment than ever before. ▣

3D Comes To Your Home Theater

Sony Introduces Its 3D-Ready Blu-ray Disc Players

When 3D technology came to a movie theater near you, it gave you an exciting new reason to catch a flick. Now, you can enjoy this visual enhancement as you recline in front of your home-theater HDTV. Sony's BDP-S470 and BDP-S570 Blu-ray Disc players ($200 and $250, respectively; www.sony.com) and BDV-E570 and BDV-E770W home-theater systems will become 3D capable this summer, giving you the opportunity to enjoy 3D in your entertainment room.

Expand Your Dimensions

A standout feature of Sony's new BD players is support for the Blu-ray Disc 3D standard created by the Blu-ray Disc Association (with a firmware update coming this summer), so you can play a 3D-ready Blu-ray Disc. Beyond the 3D-ready feature, they also offer Full HD 1080p resolution for Blu-ray Discs and near-HD quality for DVDs (thanks to up-scaling technology). You can experience these visuals when using an HDMI cable with the player and your HDTV.

Plenty Of Media Options

Sony's BDP-S470 and BDP-S570 Blu-ray Disc players are full of smart features for accessing content via the Internet. Sony's BRAVIA Internet Video streams photos,

Sony BDV-E570 Home Theater System **|** $650 **|** www.sony.com

videos, TV episodes, and movies from its compilation of entertainment apps such as Netflix, Slacker Internet Radio, and Sony Music. In fact, there are more than 25 media providers available through the Sony BRAVIA Internet Video platform, and the included Cross Search feature lets you search some of these for information related to the BD you are watching.

More To Come

Sony has added even more features to these BD players to enhance your viewing experience. For instance, the Gracenote Metadata Service provides actor and pro-duction notes stored on the Blu-ray Discs. And, the disc players include access to Qriocity, an on-demand movie service

coming this spring that allows you to watch the newest Hollywood releases in your home theater and on other Sony de-vices, such as the PlayStation 3 and PSP.

iPhone or iPod touch owners will be able to use their devices as a remote control for the BD player by downloading the free BD remote app from the iTunes app store. Aside from conveniently control-ling your Sony BD player, the remote also gives you access to movie information, entertainment topics, and more.

Enjoy The Full 3D Cinematic Experience

Sony's 3D-capable Blu-ray Disc players allow you to enjoy a cutting-edge video technology in the comfort of your own home, but to fully create an entertain-ment experience that rivals a cinema, Sony offers its soon-to-be 3D-capable BDV-E770W and BDV-E570 Home Theater Systems ($550 and $650, respec-tively). These systems feature a 3D-ready Blu-ray Disc player and a 5.1-channel speaker system that can decode Dolby TrueHD and dts-HD Master Audio. With a sleek, monolithic speaker design that can ouput 1,000 watts, this powerful home-theater setup will give you the illu-sion of being caught in the middle of the action of your favorite flicks. **FG**

Sony's 3D-Ready Players

- Use Sony's BRAVIA Internet Video to stream media via a va-riety of entertainment apps

- 3D-ready capabilities will let you play a 3D Blu-ray Disc in your home theater

- You can access even more movie content with Gracenote Metadata and Qriocity service platforms

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Make The Move To BD

Enhance Your Home-Theater Experience

When the weekend rolls around, it's time to hit the movies, and tonight's showing has some big surprises. How about free tickets, unlimited popcorn, and a soft recliner? With a BD (Blu-ray Disc) player and movies, you and your family can enjoy the perks of the movie theater from the comfort of your home.

Blu-ray Benefits

Blu-ray offers the best audio and video quality available, transforming your family movie night into a truly cinematic home-theater experience. Although BD movies cost more than traditional DVDs, they boast up to six times the amount of video detail in high definition, rendering the film's rolling ocean waves so realistically that you'll believe you're standing at the shore's edge. In addition to HD video, BD movies also feature higher-quality audio formats, often in the form of lossless or uncompressed audio, which means you'll fully hear every sweet nothing the prince whispers to the princess.

BDs can also hold more data than DVDs, which means there's more room on each disc for special features. Get a behind-the-scenes look at your favorite movie and learn about how it was made, play interactive games with the movie's characters, or sneak a peek at never-before-seen deleted scenes.

Just when you think the show's over, there's even more you can do with Blu-ray. With a BD-Live-compatible player and an Internet connection, BD-Live movies let you download additional content and bonus features online and update or upgrade your player.

In addition to better picture and sound, BD movies are more durable than DVDs and won't scratch as easily, so you can rest easily when the kids are setting up their own cinematic adventures while you take care of dinner. And there's no need to worry about not being able to view your existing DVD collection; BD players will upscale your DVDs to a higher resolution, making them look better than ever.

Better Than The Theater

Blu-ray can change the way you and your family view a night at the movies. Enjoying a great film together doesn't mean you have to shush the chatting in the row ahead of you or wonder what sticky substance you just put your shoe in. With Blu-ray, you can truly sit back, relax, and enjoy the show. **FG**

BY Kris Glaser Brambila

Get The Optimum Performance

You can feel immersed in every moment of a wild car chase, an action-packed sword fight, or a tranquil horseback ride through the forest. In order to get the most vivid picture from your BD player and movies, you should have an HDTV with 1080p resolution. Surround-sound speakers will engulf you in the moment and bring any scene to life. And to ensure you're getting the best picture and sound, you should budget for accessories such as HDMI cables, too. ●

Power Your HT Audio Setup

Choose The Right A/V Receiver

A n A/V receiver is an essential part of your home-theater audio system. Although all A/V receivers perform the same basic functions, they fall into one of three categories, each designed to fit the needs of a particular home-theater setup. In the following sections, we'll help you discover what type of receiver you need to power your individual home-theater audio setup.

Entry-Level Receivers

The most basic A/V receivers can decode audio from a number of connected audio and video components, as well as channel sound to your speakers. With a total of 250 to 500 watts, most entry-level receivers are designed to work with 2.1- or 5.1-channel speaker setups, which you might use in smaller home theaters, such as in an apartment. Lower wattage and basic features make entry-level receivers less expensive, typically ranging from $200 to $250.

Perfect For: A 2.1-channel speaker setup in smaller home-theater rooms (sizes between 100 and 200 square feet).

Midrange Receivers

The larger your home-theater room is, the more speakers you'll need to fill it with sound, and you'll need a more powerful A/V receiver to accommodate them. Midrange receivers typically

support 500 to more than 800 watts and are often used with 5.1-channel setups. In addition to the basic features, many integrate MP3 player connectivity or satellite radio access, so you can listen to your customized playlists or genre-specific radio stations over your surround-sound system. Some midrange receivers are even Bluetooth-compatible, so you can connect other wireless components, such as surround-sound speakers. To add a midrange A/V receiver to your

home-theater audio setup, you'll likely spend between $200 and $500.

Perfect For: A 5.1-channel audio setup in a small to midsized home-theater room (200 to 300 square feet).

High-End Receivers

The largest home theaters with the most demanding speaker kits will need an A/V receiver with at least 750 watts. Some high-end receivers can support up to 1,400 watts, which lets you set up multiple audio zones. For example, the highest-end receivers can power both a 7.1-channel speaker set in your home theater and a separate stereo system in another room. High-end receivers can cost anywhere from $600 to $7,000—the more expensive models feature higher wattage, LCD screens, and built-in wireless transmitters for communicating with wireless speakers.

Perfect For: A 7.1-channel or greater surround-sound setup in larger home-theater areas (up to 400 square feet or more). FG

Top A/V Receiver Features

- Entry-level receivers are best for small home theaters that don't require as much power.

- A midrange A/V receiver is sufficient for the average home theater running a 5.1-channel speaker setup.

- For the most demanding home-theater needs, a high-end receiver can support 7.1-channel speakers and more.

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Speaker Considerations

What To Look For When Buying Home-Theater Speakers

You already know that adding surround-sound speakers to your home theater enhances your entertainment experience, but when choosing a set of speakers, there are several factors to consider.

Learn The Basics

Home-theater audio setups typically consist of a 2.1-, 5.1-, or 7.1-channel arrangement. The first number denotes how many speakers are included with the set, while the latter indicates a subwoofer.

All of the components in a speaker setup are powered by an A/V receiver, which is used to channel sound to each of your speakers. The components in a home-theater audio setup can be purchased individually, giving you the flexibility to create an audio configuration that best suits your home theater, or as a pre-matched set, called an HTB (home theater in a box), which saves you time from researching and pairing components.

Choose Speakers With Style

Keep your home-theater room in mind when looking at speakers. Floor-standing speakers are powerful enough to fill large spaces but have small bases so your room won't feel cluttered. Home theaters that don't have much space can benefit most from small satellite speakers, which can be fastened to a stand that places the speakers at ear level or attached to the wall. If you want a minimalist home-theater look, in-wall or in-ceiling speakers are less obtrusive and noticeable than other speaker types, as are sound bars, a single speaker that sits directly below your HDTV and simulates surround sound. If your goal is to be clutter-free, wireless speakers can eliminate cable routing issues.

Power Your Speakers

No matter which speakers you choose, your A/V receiver needs to be able to supply power to all of them. To determine whether a specific receiver can power a speaker set, add up the total wattage of all the speakers and the subwoofer, usually found on the back or bottom of each speaker. The combined wattage of the speaker set cannot be greater than the receiver's total output wattage (which you can determine by reading your receiver's label or users manual); otherwise,

you'll risk damaging the receiver when you try to use your audio setup.

Get The Right Setup

The size of your speaker setup depends greatly on the size of your home-theater room. Smaller rooms may be overloaded with a 7.1-channel setup, but a 2.1-channel setup or a center-channel speaker positioned just above or below an HDTV can offer simulated surround sound. Larger rooms need a fuller setup in order to fill the entire room with sound. For most home theaters, which average about 200 square feet, a 5.1-channel setup can fill the space with sound.

Where you place each of the speakers in your 5.1- or 7.1-channel setup depends on the shape of your room. In most cases, a 5.1-channel setup will include two sets of left and right speakers, a center speaker that sits above or below your HDTV, and a subwoofer that can be placed on either side of your HDTV on the floor. In 7.1-channel setups, one additional speaker can be added to each side of the viewing area. FG

BY KRIS GLASER BRAMBILA

Top Speaker Considerations

- You can buy speaker components individually to create your ideal setup or as an HTB set.

- With a variety of speaker designs to choose from, you can match your home theater's aesthetic.

- Your A/V receiver should be able to effectively power all of your speakers.

- How many speakers you need depends on the size of your home-theater room.

FirstGlimpse

Yes, You Need To
Calibrate
Get Optimal HDTV Video Results

The HDTV is the center of attention in any home-theater setup. To ensure that it is providing the best video results, consider a professional HDTV calibration.

Your Video May Not Be All That It Seems

While every HDTV owner is unique, the display settings on an HDTV may not be. If you want to ensure lifelike image quality for your HDTV, you'll need a professional to perform a calibration.

• Most TVs are shipped with a set standard video mode meant for an electronics store display—this means that the TV's settings are adjusted to show the best picture in a bright, fluorescent-lit environment. Because it's unlikely your lighting at home matches the store's surroundings, you should have your TV professionally calibrated by an ISF (Imaging Science Foundation)-certified specialist to accommodate your home's unique lighting environment.

• An HDTV's viewing angle and your home-theater setup also affect how your HDTV should be calibrated. An ISF-certified professional takes these factors into account when making adjustments.

• Although you can expect to budget 10 to 15% of the purchase price of your television for a professional calibration, consider it an entertainment investment that will pay dividends for years to come.

Why A Professional Calibration?

Instead of taking a chance with your HDTV investment, rely on professionals to handle the work for you.

• Calibration specialists are ISF-certified, which means they are trained to use highly specialized and expensive equipment to calibrate HDTVs correctly.

• A calibration DVD might be a tempting alternative, but it won't let you adjust all of your HDTV's settings. An ISF-certified professional can access advanced service menus to calibrate your TV correctly. These settings aren't meant to be experimented with, so if you poke around and gain access to your TV's service menu, it's best to leave it alone. Many customers have rendered their TVs useless because they didn't know which settings they were changing.

• Calibration DVDs only adjust video settings for your HDTV's DVD input. This means when you're watching video from a source other than a DVD, your picture won't be calibrated. A professional calibration takes care of two source inputs, such as your DVD player and cable box inputs.

What You Can Expect

An in-home calibration service will typically last about two hours and includes the following:

• A professional will use color analyzer equipment to objectively tune color saturation and temperature as precisely as possible, letting you see video exactly the same way it looked when it was created.

• Your HDTV's contrast will be set up to provide greater video detail as well as the darkest blacks and brightest whites.

• No matter which calibrated source input you are using, you will enjoy the best image clarity and sharpness that your HDTV can provide. FG

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Essential THINGS TO KNOW

SPEAKER SETUPS

Q Why would I want to use a speaker system instead of my TV's speakers?

A You can put discrete speakers farther apart and around the room for a more immersive audio experience.

Q What is the best kind of speaker setup for a home theater?

A A good surround-sound system. With speakers that literally surround you, this setup envelops you in audio the way most movie soundtracks intend.

Q What type of surround speakers does a home-theater audio system use?

A Satellite speakers physically located around the viewer handle sounds that "happen" to the side, front, and rear, according to the video soundtrack.

Q What do the specialized speakers in the setup do?

A A center speaker by the TV is tuned to make dialogue sound clearer. Meanwhile, a larger subwoofer generates very low bass sounds.

Q Does it make a difference where I put the subwoofer?

A Somewhat, but because bass is nondirectional, the sub's location isn't as important as the locations of the other speakers.

Q What's the best place for the subwoofer?

A You can make a subwoofer sound crisper by placing it near a corner. A down-firing sub (one with a speaker facing the floor) will sound best on a hard surface.

Q Do I need a special cable for the subwoofer?

A For the best bass response, yes. Any RCA-style audio cable will work, but one made for subwoofer duty should give you better results.

Q What types of surround-sound setups exist?

A A 5.1-channel (speaker) set has five satellite speakers including the center channel, along with a subwoofer. A 7.1-channel set includes two additional rear speakers for a more immersive soundscape.

Q How compatible is a multichannel audio system with movie discs and TV shows?

A Virtually all home-theater sound systems will "spread" audio to every speaker, although a 5.1 setup will perform best with a 5.1 soundtrack, for example. If your BD (Blu-ray Disc) player doesn't decode (make audible) every high-definition audio format, you may want a receiver that supports the rest.

Q What is an HTB?

A A home theater in a box is a kit with a receiver, speakers, a subwoofer, and speaker cables. It might also come with a BD or DVD player.

Q Do I have simpler and/or more compact audio options?

A Yes. A 2.1-channel stereo system has one left and one right speaker, plus a subwoofer. Meanwhile, a soundbar (a single unit with multiple speakers) can simulate surround sound.

HDTV Glossary

Balderdash! OK, HDTV jargon isn't quite *that* bad, but there are a few terms that every shopper needs to know. Here is your cheat sheet.

aspect ratio—Put simply, it's the shape of the TV's screen. An HDTV has a wider picture than a traditional TV of the same vertical screen height. An HDTV has a 16:9 aspect ratio, meaning that if its screen were 16 inches wide, it would be 9 inches tall. A regular 4:3 TV screen would be 12 inches wide at the same 9-inch height.

interlaced—When an HDTV displays an interlaced image, as in 1080i or 480i resolutions, it really shows you every other horizontal line of a frame of video (called a field) at a time. Sixty times a second, the TV displays the other field of the frame, or the lines not shown in the previous field. Interlaced video can appear to flicker or might cause moving objects on-screen to have blurred edges.

LCD (liquid-crystal display)—Like a notebook's screen, an LCD HDTV uses a fluid crystal substance to form pixels of color in front of a backlight. LCDs may

such as a TV channel's stock ticker or parts of certain video games, is displayed too long.

progressive scan—A TV showing a progressively scanned image, as in 1080p or 720p resolutions, displays a full frame of video (both odd-lined and even-lined fields) all at once. Progressive-scan video looks sharper than interlaced does and doesn't flicker.

projection—Some large-screen HDTVs offer lower-priced alternatives to LCDs or plasmas by using projection technologies.

HDMI (High-Definition Multimedia Interface)—A type of cable connection that carries both high-resolution video and uncompressed multichannel audio among HDTVs, home-theater receivers, and the other components required for your home-theater setup. HDMI cables maintain top picture and sound quality.

HD tuner—A built-in tuner for receiving local high-def broadcast TV channels. You won't need one if you have cable or satellite service. Some more expensive HDTVs include one, but separate HD tuners and antennas are available if your TV doesn't have one.

not be able to match plasma TVs' deep black and gray areas, but they're lighter, sometimes less fragile, and considered easier to set up. These work better in brighter rooms or if you will be playing unchanging images on the screen for an extended period of time.

plasma—Plasma TVs use a tiny tube of gas for each pixel, and electricity makes each pixel glow. Plasmas create deeper blacks and sometimes brighter colors than LCDs and have better contrast. These also offer slightly better viewing angles. However, older or less expensive models can also suffer from permanent screen damage if an unchanging image,

These technologies vary, but all projection TVs throw light on a screen from the front or rear. This means they are bulkier than plasmas or LCDs, but some sets have stellar picture quality.

viewing angle—No matter where you sit in front of an HDTV with a wide viewing angle, such as 170 degrees, its picture should look reasonably good. Test this before you buy.

widescreen—A TV or monitor that's wider horizontally in relation to its vertical height. HDTVs typically have a 16:9 aspect ratio rather than an older 4:3 display. **FG**

HDTVs

Screen Technology Differences

LCD (liquid-crystal display)

LCDs can use one of two backlight technologies. CCFLs (cold cathode fluorescent lamps) are the most common, but LEDs are the latest backlight technology to hit the LCD scene. (See the "LED" section for more info on LED TVs.)

Pros
- The thin profiles and light weight of LCDs make them easy to mount on a wall.
- Power demands are a bit lower than comparably sized plasma displays and considerably lower than CRT televisions.

Cons
- Fast-moving images may suffer from a slight trailer effect, but with improved LCD technology, the effect is barely perceptible.
- When pixels stick on or off, they show up as either a pinpoint of bright light or black, which can be distracting on-screen.
- From certain viewing angles, LCDs will lose video contrast and color.
- LCDs with CCFL backlighting suffer from leaking light, and unlike LEDs, they can't dim certain areas on-screen. This may result in blacks and whites that appear to be more gray in color.

Best For
- Streaming PC content
- Bright, sunny rooms

LED (light-emitting diode)

LED TVs are actually a type of LCD TV. These sets use one of two LED backlight technologies:
- Full-array lighting places LEDs behind the screen in a grid pattern, letting the TV dim certain LEDs for the best contrast ratios available.
- Edge-lit sets have LEDs placed around the frame of the TV, and light is directed toward the center of the screen. Edge-lit models cost less than full-array sets and are a lot thinner.

Pros
- By using LEDs, these sets use a lot less electricity than other HDTVs, and they don't contain harmful mercury.
- Overall, LED TVs are one-third thinner than other LCD TVs and have longer life spans.
- Plasmas are well-known for their deep blacks and crisp whites and fast response times, but LED TVs closely match in performance.

Cons
- These sets are costly because they feature a relatively new technology.
- Blooming, or a halo effect, may encircle bright images that are on dark backgrounds.

Best For
- Eco-conscious viewers
- Fast-paced gaming

Plasma

Pros
- A plasma TV's phosphors light up evenly across the screen to create images, which are consistently bright and clear with vibrant colors.
- The contrast ratio is high, so you'll see some of the darkest blacks and brightest whites.
- The design and technology of plasma TVs lend themselves to large screen sizes—typically 50 inches or greater.
- Rapid pixel response means no blurry motion.
- Wide viewing angles give you the same high-quality images on-screen no matter where in the room you happen to be sitting.

Cons
- Some plasmas are susceptible to image burn-in if not cared for properly.
- Low air pressure and high altitudes may cause plasmas to buzz.
- Some plasmas have highly reflective glass, which isn't ideal in sunny settings.

Best For
- Large groups that watch TV together
- Movies or sports with nonstop action

RPTV (rear-projection TV)

Pros
- RPTVs are surprisingly lightweight for their sizes.
- You'll find exceptional picture quality on very big screens (65 inches and larger).
- As screens get bigger, RPTVs tend to be more cost-effective than an LCD, LED, or plasma TV.

Cons
- With depths of 16 to 24 inches, these TVs are far too big and bulky to mount on a wall.
- RPTVs require lamp replacements every few years.

Best For
- Anyone who wants to bring a cinematic experience home
- Big, roomy home theaters

FirstGlimpse

Should You Get An LCD Or LED-LCD TV?

So you've decided to get an LCD TV. The next step is deciding *which* LCD TV to invest in. LCDs use two different kinds of lights to project an image onto the screen: CCFLs or LEDs. A traditional LCD uses CCFLs whereas new LED-LCDs use LEDs.

	Light Projection	Size	Dimensions; Weight***	Native resolution	Viewing angle	Inputs & Outputs	Refresh rate**
What It Means	How images are projected on-screen; Type of backlight an LED-LCD uses	The diagonal measurement of the TV's screen	Height x width x depth; how much the TV weighs	A fixed TV resolution; images are best displayed in this	The angle at which the viewer can see the screen clearly	Inputs let you connect devices; Outputs transfer information to peripherals	Speed at which a screen is redrawn every second
Insignia NS-L46Q120-10A MSRP: $799.99* SKU 9554519	CCFL	46 inches	31x44.3x 12.3 inches; 44.1 pounds	1080p	N/A	4 HDMI, 2 S-Video, 2 Component, 2 Composite, 1 PC; 1 audio output	120Hz
Panasonic VIERA TC-L42U12 MSRP: $899.95* SKU 9239228	CCFL	41.6 inches	26.3x40.5x 4.4 inches; 64 pounds (with stand)	1080p	178 degrees	3 HDMI, 1 S-Video, 1 Component, 2 Composite, 1 PC; 1 audio output	60Hz
LG 42LH50 MSRP: $1,699* SKU 9321637	CCFL	42 inches	25.9x41.4x 3.6 inches; 37.9 pounds	1080p	178 degrees	4 HDMI, 2 Component, 2 Composite, 1 USB; 1 audio output	120Hz
Mitsubishi LT-46249 MSRP: $2,799* SKU 9427211	CCFL	46 inches	28x42x3 inches; 68.6 pounds	1080p	N/A	4 HDMI, 3 Composite, 3 Component; 2 audio outputs	120Hz
Insignia NS-40E560A11 MSRP: $999.99* SKU 9688972	LED	40 inches	25x38.9x 1.5 inches; 34.2 pounds	1080p	178 degrees	4 HDMI, 1 Component, 1 Composite; 2 audio outputs	120Hz
Sharp LC-52LE810UN MAP: $2,299.99* SKU 9730536 *See p. 8*	LED (edge-lit)	52 inches	32x49.6x1.6 inches; 52.9 pounds	1080p	176 degrees	4 HDMI, 1 Component, 1 Ethernet, 2 USB; 2 audio outputs	120Hz
Samsung UN55C6300SF MSRP: $2,499.99* SKU 9790851	LED (edge-lit)	55 inches	50.5x30.2x 1.18 inches; N/A	1080p	N/A	4 HDMI, 1 Component, 1 Ethernet, 2 USB; 2 audio outputs	120Hz
Sony BRAVIA KDL60EX700 MSRP: $2,999.99* SKU 9763394	LED; (edge-lit)	60 inches	34.6x56.4x 2.6 inches; 60.2 pounds	1080p	178 degrees	4 HDMI, 2 Composite, 1 USB, 1 Ethernet; 1 audio output	120Hz

LED-LCD

*Prices listed in this issue are for general reference and may vary from retailer pricing.
***Unless specified, this is without stand

** Comparing refresh rates between plasma and LCD TVs is like comparing apples to oranges. For more in-depth information about refresh rates, please ask a sales associate.

FirstGlimpse

Which Plasma TV Is Best For You?

If you're planning on buying a plasma HDTV, it might be hard to decide on one just by looking at a wall of gorgeous sets. Refer to this chart for further help when shopping.

	Size	Dimensions; Weight***	Native resolution	Viewing angle	Inputs	Outputs	Refresh rate**
What It Means	The diagonal measurement of the TV's screen	Height x width x depth; How much the TV weighs	A fixed TV resolution; images are best displayed in the native resolution	The maximum angle at which the viewer can see the screen clearly	Inputs let you connect your components to your TV	Outputs transfer information from your TV to peripherals, such as audio to speakers	Speed at which a screen is redrawn every second
Panasonic TC-P42C2 MSRP: $599.95* SKU 9770484	42 inches	26.1x 40.6x 3.7 inches; 52.9 pounds	720p	N/A	2 HDMI; 2 Composite; 2 Component	1 audio	600Hz
Samsung PN42C450B1D MSRP: $749.99* SKU 9791253	42 inches	26x41.6x 2.9 inches; 53.1 pounds	720p	N/A	3 HDMI; 2 Component; 1 Composite; 1 PC	N/A	N/A
Panasonic TC-P42U2 MSRP: $799.95* SKU 9761059	42 inches	26.1x40.6x 3.7 inches; 49.6 pounds	1080p	N/A	3 HDMI; 2 Component; 2 Composite	1 audio	600Hz
Panasonic TC-P50G20 MSRP: $1,499.95* SKU 9788953	49.9 inches	30.3x48x 3.5 inches; 57.3 pounds	1080p	N/A	3 HDMI; 2 Composite; 2 Component; 1 PC	1 audio	600Hz
Samsung PN50B860 MSRP: $2,199.99* SKU 9301141	49.9 inches	29.6x48.7x 1.2 inches; 57.5 pounds	1080p	N/A	4 HDMI; 2 Component; 1 Composite; 1 PC; 2 USB	N/A	600Hz
Samsung PN58B860 MSRP: $3,199.99* SKU 9300687	58 inches	33.6x56x1.4 inches; 81.3 pounds	1080p	N/A	4 HDMI; 2 Component; 1 Composite; 1 PC; 2 USB	N/A	600Hz
Samsung PN63B590T5 MSRP: $3,599.99* SKU 9315564	63 inches	36.7x60.2x 2.9 inches; 133.6 pounds	1080p	N/A	4 HDMI; 2 Component; 1 Composite; 1 USB; 1 VGA	1 audio	N/A
Panasonic VIERA TC-P65V10 MSRP: $3,999.95* SKU 9396496	64.7 inches	38x61.9x3.9 inches; 134.5 pounds	1080p	N/A	4 HDMI; 2 Component; 2 Composite; 1 S-Video; 1 PC	2 audio	600Hz

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***Unless specified, this is without stand

**Comparing refresh rates between plasma and LCD TVs is like comparing apples to oranges. For more in-depth information about refresh rates, please ask a sales associate.

FirstGlimpse

NOTEWORTHY

Accessories & Services

As you head toward the HDTV section of your local consumer electronics store, you'll invariably pass shelves of bland-looking HDTV accessories. There are a handful of accessories that are vital to getting the most from your HDTV. The following is a rundown of the accessories we recommend to complete your home-theater setup. **FG**

WALL MOUNTS & BRACKETS
- View your HDTV from the best possible angle
- Adjust your TV's position by tilting it up or down as needed
- Maximize space in your viewing room by hanging up your TV

CLEANING KIT
- Protect your HDTV's screen by using specially formulated sprays and cloths while cleaning it
- Eliminate the danger of scratching delicate screens
- No-drip formulas prevent damaging other home-theater equipment

UNIVERSAL REMOTE CONTROL
- Simplify your home-theater setup with one remote that can control all of your components
- Program different functions so that you will be able to watch a movie by pressing just one button, for example
- Easily view options in the dark with a backlit LCD

SURROUND-SOUND SYSTEM
- Maximize your HDTV experience with theater-like audio
- Feel like you're in the movie scene instead of just watching it
- Even out softer and louder programming with an equalizer

CORD-CONCEALMENT KIT
- Hide multiple cords while keeping them organized
- Minimize cord clutter, especially with wall-mounted sets
- Keep the focus on your new HDTV, not the cords connected to it

TV STANDS
- Offer flexibility if you're unable to mount your HDTV on the wall
- Available in a variety of finishes to match any décor
- Provide a place for additional home-theater equipment

SURGE PROTECTORS/POWER CONDITIONERS
- Protect your home theater from potential damage by using a surge protector that will absorb electrical fluctuations
- Filter out "dirty power" (also known as electrical "noise" or radio interference) that can degrade your home theater's audio and video with a power conditioner
- Have peace of mind knowing that your home theater will give you its peak performance for the longest amount of time

HOME-THEATER SERVICES
A home theater is a pretty big investment, so it's wise to consider letting a professional handle your installation and setup. Let your local CE retailer tackle the following tasks, and you'll be able to enjoy the full glory of HD in no time.

- Home Theater In-Home Consultation
- TV Recycling
- TV Calibration
- TV Mounting & Cord Concealment
- Remote Control Programming
- Speaker Setup

HDMI CABLES
- Carry uncompressed digital audio and video signals to and from your HDTV and its components
- Eliminate interference from other components with shielding (found in higher-end models)

FirstGlimpse

The Point-&-Shoot vs. D-SLR Conundrum

Which Is The Better Fit?

Before you choose a specific brand and model of digital camera, you must decide whether you should get a point-and-shoot camera or a D-SLR.

This may be tricky. Leaving price aside—the average point-and-shoot will always run less than a D-SLR—let's look at factors that might sway your decision.

Size. Even the bulkiest point-and-shoot camera should fit in your pocket, while you'd need an awfully big pocket to hold the smallest D-SLR. If you want a smaller camera that can accompany you to events when it's wise to pack light, the point-and-shoot comes out ahead.

Ease of use, depth of control. Point, shoot, enjoy—point-and-shoot cameras are designed to be just that simple, automating their controls. D-SLRs have deep features that provide total creative control. At least that's the broad impression. In truth, D-SLRs also offer full and partial automation, and point-and-shoot cameras—for instance, the Fujifilm FinePix S2700HD ($249.95; www.bestbuy.com/fuji)—have scene modes and other options for customizing shooting and sharing.

Still, if you're new to photography, you might want to get your feet wet with a point-and-shoot. But if you're hungry to experiment and call the shots yourself, a D-SLR will be an active partner.

Lens and image quality. D-SLR lenses are gigantic compared to the lenses on a

Determine Your Digicam

- Point-and-shoots win for small size and the more user-friendly operation.

- D-SLRs take the edge in image and component quality.

- D-SLRs shoot faster and offer interchangeable lenses, but not everybody needs this.

point-and-shoot but have greater optical precision. And a D-SLR's body has room for a larger image sensor (the electronic chip that captures the photo). As a rule, bigger components mean clearer photos.

However, this may not necessarily be an issue. If your goal is snapping candid shots at family gatherings, the point-and-shoot will do a wonderful job. But if your passion is shooting artwork for your walls, the D-SLR will deliver more professional-looking results.

Lens interchangeability. One chief distinction of D-SLRs is the ability to change lenses in different situations. You could use a portrait lens at a family cookout or an ultra-wide angle lens for landscape shots. With a point-and-shoot, you're restricted to one built-in lens.

Speed. Point-and-shoot cameras shoot faster than they used to, but many still exhibit shutter lag, a brief gap between the moment you press the shutter and when the photo is taken. In contrast, D-SLRs respond instantaneously. If you want to capture split-second plays at your kids' soccer games, the D-SLR is the one to count on. FG

BY BRIAN HODGE

FirstGlimpse

FIND YOUR
Camcorder Type

What Sets Popular Camcorders Apart

When you shop for a camcorder, you'll notice that each model falls into one of two categories: SD (standard definition) and HD (high definition). Beyond that, camcorders are further categorized by storage type, and the majority of them are either flash memory- or hard drive-based. And size can vary depending on the camcorder's functionality and storage type. Keep reading to learn more about camcorder types and how to make an informed purchasing decision.

SD vs. HD

SD camcorders record low-resolution video (480p), which means you can capture more video footage without paying for a large amount of storage. However, you'll sacrifice a clearer and sharper picture. HD camcorders record in two resolutions, 720p and 1080p, which gives you a sharper, clearer picture when viewing footage. You'll be able to find both SD and HD camcorders that use the storage formats outlined below.

Hard Drives

The primary benefit of a hard drive camcorder is the hours of available storage, as these support higher capacities than flash memory camcorders do. Depending on whether you record in SD or HD format, you can save more than 10 hours of footage.

Perfect For: The recording enthusiast who wants to store multiple hours of video on her camcorder.

Maximize Recording Potential

- SD camcorders record in low resolutions, while HD camcorders support 1080p or 720p.

- Hard drive memory gives you plenty of recording storage.

- Flash memory camcorders are lightweight and ideal for quick photo transfers.

- Shoot-and-share camcorders are lightweight and small enough to carry in your pocket.

Flash Memory

Camcorders that use flash memory storage have no moving parts, which means they will be less susceptible to breakage if accidently dropped. Flash drive-based camcorders are extremely compact and battery-efficient, making them good travel companions. You can store recordings on a camcorder's built-in flash memory or a removable memory card (SD or SDHC) and quickly move video content from your camcorder to your PC.

Perfect For: Anyone who wants to quickly capture and transfer video to a Web site or video link.

Camcorders For Your Pocket

There is a tertiary category of HD camcorders that overlaps with the flash memory format: shoot-and-share camcorders. These ultra-compact camcorders are roughly the size of a cell phone and include built-in software for editing footage and uploading it to popular video sites.

Perfect For: Those who want a camcorder with a sleek design and a simple user interface that can shoot HD-quality video. **FG**

BY JOANNA SAFFORD

FirstGlimpse

Notable Camera Features

It's All About The Extras

It's safe to say that digital cameras are yesterday's news. But now that we're hip-deep in the digital imaging waters, they are finding new ways to make a splash with innovative imaging technologies that make the pictures you take look better than ever before. Read on as we explore some of the best reasons to ditch your old digicam and pick up a feature-packed point-and-shoot or D-SLR.

Face Detection

Face detection technology has been around for a while, but it's always getting better. Digital cameras with face detection will display boxes around any face detected within the frame, which lets the photographer ensure each face gets the optimal focus and exposure in the final image. Fujifilm's Z70 ($149.95; www.bestbuy.com/fuji) can recognize up to six faces in a photo, and the model also includes a face detection timer function. The timer automatically takes the photo after detecting the right number of faces in the scene, so you can take group photos without leaving someone out.

But face detection doesn't stop with people: Some cameras also feature special modes to optimize camera settings for photographing pets. Another advanced face detection technology, smile detection, can automatically snap the photo when the subject smiles, so you know that you'll get the best images of

Image-Enhancing Features

- Digital cameras offer new features that let you take better pictures.

- Face detection results in superior focus, exposure, and clarity and can warn the photographer if the subject blinks or automatically take the picture when the subject smiles.

- Other features make recording video and putting content online easier than ever.

hard-to-photograph toddlers and non-compliant teens.

Blink Detection

A subject's momentary blink can ruin an otherwise stellar photograph, but you typically don't know the image has been ruined until you review it. Blink detection technology uses an advanced face detection algorithm that has been tweaked to look for closed eyes. If a blink has been detected in a photograph, the camera warns you to retake the shot. So, you'll know in advance if the kids are squinting.

Auto Upload

Many of the photos we take eventually find their way onto our favorite social networking sites. An increasingly popular

technology for digital cameras lets users add tags to images and video clips, either before or after they have been photographed or filmed. These tell the camera to automatically upload them to a selection of popular sites, such as YouTube and Facebook. So now the snapshots of your baby can be uploaded while you're changing her diapers.
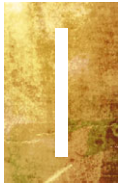
HD Video

Most current digital cameras feature the ability to record video clips, but select models come with the ability to shoot 720p HD video. And some might feature mini HDMI ports, which let you view your video in Full HD on your HDTV via a compatible HDMI cable. FG

BY Andrew Leibman

Home Movies In HD

What You Need To Know

If you have an HDTV, you likely want to capture and play back your home movies in HD, too. Here, we'll help you learn the ropes of recording, playing, and editing HD video.

The HD Camcorder

HD camcorders don't always record video at 1080p, which is the top resolution currently found in HDTVs. Some models only capture footage at 720p or 1080i. The progressive (p) format of 1080p and 720p captures one full frame of video every 30th of a second, while the interlaced (i) format of 1080i captures one full frame of video every 60th of a second. The slower frame rate of 1080i may cause video to flicker or jerk across the screen during fast pans or action shots.

HD camcorders that record in 1080p are typically called Full HD, because the video is shot at a resolution of 1,920 x 1,080, which is more detailed than the 1,280 x 720 resolution of 720p camcorders.

HD Playback

To play back your video in HD quality, you can either use an HDMI cable to directly connect the camcorder to the HDTV or use your PC to copy video to a BD (Blu-ray Disc) for playback on a BD player. The advantage of putting your HD video on a BD is that you'll have a backup copy, and you can also edit the footage to remove clips you don't want to keep or add menus to make it easy to find specific moments.

HD Recording Tips

- HD camcorders may record in 1080p, 720p, or 1080i—1080p is the top resolution available.
- To watch your home movies in HD, you'll need to connect the camcorder to an HDTV via HDMI cable or burn the video to a Blu-ray Disc.
- Your PC will need a BD burner to copy the video in HD quality.
- You'll need a video-editing program that supports AVCHD or HDV to import HD clips.

Edit In HD

To transfer HD video, you'll need to connect the digital camcorder to your computer using its included USB or FireWire cable. Your PC must have a video-editing program that can import HD video, because it has to be compressed to fit onto current recording mediums. If your camera captures video to a hard drive or flash memory, the video-editing program must support AVCHD (Advanced Video Codec High Definition), and those that record to MiniDV need an application that can import HDV.

Once you've copied the video to BDs, you can play the HD content using a BD player in your home-theater or computer setup. And with your HD home movies backed up on disc and to your PC, you'll have more space for new footage, because you can record over it or delete the recordings off your camcorder. FG

BY NATHAN LAKE

TOP FIVE WAYS TO
Improve Your Audio & Video

Add Accessories To Maximize Your Digital Imaging Experience

Digital cameras and camcorders are sophisticated gadgets that require equally advanced accessories. Although each device offers a large number of built-in features, there are a few extras that can enhance the time you spend behind the lens. Whether you're a recreational photographer attempting to take intricate nature-based photos or an amateur videographer who wants to record the sharpest video during day and night shoots, there are add-ons that can make these objectives a reality.

Remotes

A camera remote switch (or remote release) is perfect for photography enthusiasts who are interested in snapping the clearest photos. You can use a remote to release the shutter from a few feet away from the camera itself, preventing camera shake, as you are not actually touching the camera when releasing the shutter. Be sure you look for a camera remote that is compatible with your particular brand of camera.

Tripods

Standard tripods are best for taking long exposures or night shots when you need to keep the camera completely still while capturing a one-of-a-kind shot. A tripod would also pair well with a remote switch to eliminate camera shake and help you steady your camera on uneven surfaces, especially in outdoor shots when you need to position yourself on a precarious hiking trail halfway up a mountain. A tripod will give you the freedom to capture creative landscape images using slow shutter speeds or swappable lenses. Tripods are also compatible with camcorders, allowing you to film your family making memories without a jerky final product.

Battery Grip

Battery grips serve a dual purpose: They add to a camera's battery life and make it easier for the photographer to hold the camera while taking very precise photos. You can install the battery grip by attaching it to the bottom of the camera body, securing it by screwing it into place. Some feature an additional shutter release. Battery grips aren't universal, so you'll need to look for one that fits your specific D-SLR camera model.

Lights

Appropriate for camcorders, attachable lights can backlight dimly lit scenarios, such as a late-night house party, or cast a strong beam of light into a dark room. A quality LED video light will feature a dimmer, so you can adjust the brightness level for day or night recording.

Add It Up

- Remote shutter releases and tripods pair well when you need to snap time-delayed photos.

- A battery grip is designed to extend your D-SLR's battery life and give you a sturdier hand grip, thereby producing more consistent photo results.

- Adding LED lights and filters to your camcorder can brighten and sharpen your recordings.

Lenses & Filters

Adding a lens converter to a standard lens will give you more magnification options on your camcorder, especially if you opt for one that comes with adapter rings that can change the way your subject appears through the lens. Adding a UV lens filter to your camcorder will enhance outdoor recording, so you can film clear images, free from ultraviolet light that can cause a hazy video effect. FG

BY JOANNA SAFFORD

A Matter Of Size

The Right Memory Card Capacity For You

For as many digital camera memory card types as there are—SD, Memory Stick, CompactFlash, and xD-Picture Card—determining the type your camera needs typically only requires a check of the users manual. What's more difficult is deciding how much storage you need before buying the card. The following information will help.

Do I Even Need A Card?

You can get by without a memory card if your digicam provides onboard memory, and most do. Internal memory, however, is meant to supplement a memory card. Thus, most cameras only provide enough to hold 15 or so images. Although you can save money not buying a card, you'll spend considerable time transferring or deleting photos from internal memory to make room for new ones.

Play Your Cards

Memory cards currently soar past 32GB capacities—enough to store thousands of images. If you're a part-time shooter, though, even a 4GB card might be overkill. To determine the amount you need, consider how often you shoot and how many photos you'll take at once. Also consider the camera's top resolution and the resolution and the image format you'll typically use. Resolution refers to how many megapixels an image contains (1MP equals 1 million pixels). The higher the resolution, the better the detail, but more storage is required. Image format is the file type the photo is saved in, such as JPEG or RAW. JPEG uses less space but

Capacity Considerations

To determine the memory card capacity right for you, consider:

- How often you plan to shoot photos
- The resolution you'll shoot photos at
- The image format you'll save photo files in
- If you'll shoot sports, HD video, or other circumstances that require lots of memory

sacrifices details to do so. RAW retains all details but requires more space.

For reference, the SD Association (www .sdcard.org), the group behind SD technology, states that a 2GB SD card holds roughly 770 10MP images in Fine quality. A 4GB card holds 1,540, 8GB card 3,080, 16GB card 6,160, and 32GB card 12,320. Expectedly, prices reflect capacity differences; a standard 2GB SD might start at about $8 vs. a high-end 32GB SDHC card that approaches $400.

In general, a 2GB card of any card type should easily store a weekend's worth of above-average images. Buy a 4GB or 8GB card if you shoot more frequently and plan to regularly shoot RAW images. D-SLR owners should start with 8GB cards but strongly consider 16GB cards depending on the frequency they'll shoot at.

Special Considerations

Other areas where an 8GB or larger card can pay off include if shooting sports using a burst mode to quickly record numerous, high-quality shots continuously; if you're a new parent who'll take countless photos of a new baby but will lack the time to regularly transfer them; or if you'll shoot lots of HD-quality video. [FG]

BY BLAINE FLAMIG

Frame It, Share It & Print It

Enjoy Life's Moments

As digital cameras and camcorders have become inexpensive and increasingly powerful, we can snap photos and take home movies more easily than ever. There are also more ways to share captured memories with friends and family.

Frame It

One of the great solutions for sharing around the house is a digital photo frame. For example, if you find yourself with 20 excellent photos of your kid's birthday party, it's not practical to frame each one to hang on your walls, and hiding them away in a photo album is a bummer.

With a digital photo frame, all those photos run as a slideshow, so you can enjoy them all the time. If your digital photo frame supports audio, you can even add a soundtrack. And if you took video of the party, some digital photo frames support video playback, as well.

You can load up a USB flash drive or a compatible memory card to add photos to your digital photo frame, but some frames can connect directly to your computer via a USB cable to upload pics.

Share It

There are plenty of ways to share your photos and video over your home network, too. With your digital goodies stored on your computer, you can stream them to your home theater for viewing on the big screen, if your HDTV supports Wi-Fi or you have a media extender connected to your home theater. You can also use your home network to stream photos to a wireless digital photo frame.

There are also plenty of online photo- and video-sharing Web sites. You can upload your photos and video to such a site, so family and friends can view, download, or comment on them.

Print It

Of course, despite the sheer volume of cute, hilarious, momentous, or otherwise special photos you snag with your digital camera, there are always a few standouts. You can print these out on photo paper using a photo printer directly from a computer connected to your photo printer. Or, you can also connect a USB flash drive or media card to some printers and print without a computer. And if you connect your printer to a media dock, you can also print without a computer. Further, networked printers let you print from a networked computer; networked printers with Wi-Fi capabilities let you do so wirelessly.

Almost any digital camera you can buy these days has more than enough pixels to create a frame-sized 5x7 or 8x10 photo print, so you can be certain that your carefully crafted photos will look stellar in a frame on the wall—not just on the computer, a TV, or a digital photo frame. FG

BY SETH COLANER

Enjoy Your Creations

- Display photos and video on a digital photo frame.
- Stream digital media from your computer to your home theater or a wireless digital photo frame.
- Print snapshots or frame-quality photos with a photo printer directly via a computer or with a USB flash or memory card, media dock, or networked printer.

FirstGlimpse

Camera Storage Media

Where They Keep Your Photos & Video

Gone are the days of using film and video tapes in cameras and camcorders. So what has come along to replace them? Let's take a look at the storage devices used in today's digital cameras and camcorders.

Cameras

Most current digital cameras come with a small amount of permanent internal memory, but it's rarely big enough to store more than a handful of photos at a high-quality setting. You probably use internal memory every time you snap a quick pic with your camera phone, however. And when you're on vacation and you've filled your camera's last memory card, its internal memory might let you snap a few more bits of local scenery before you're out of space.

To increase their storage capacities, digi-cams rely on removable flash storage cartridges called memory cards. These are generally thin and tough, so you don't really have to worry about them breaking easily. Everything from point-and-shoots to D-SLRs accepts a card type such as SD, CompactFlash, xD-Picture Card, or Memory Stick.

The nice thing about flash memory cards is the fact that you can buy as many blank ones as you're likely to need in a typical shooting session. Should you run out of space on one card, which might have a capacity of up to 32GB or so, pop it out and insert another.

Once you're done shooting, it's easy to plug a memory card into a PC's reader to transfer your photos, a printer for computer-free printing, or devices such as game consoles and certain HDTVs for impromptu slideshow displays.

Camcorders

Many camcorders have more than one storage option. These days, internal flash memory often complements another recording medium, such as a removable memory card, to give you space for extra video or still images.

Flash memory has become wildly popular lately because it allows camcorders to be very lightweight, compact, and durable. Its low power requirements help extend a camera's battery life, too. From a girls' night out to the slopes of the local snowboarders' favorite hill, a rugged and reliable flash camcorder is a great choice.

If your recording needs go past an hour, however, consider a camcorder with a hard drive, which will have more storage capacity. For example, some models can capture an entire college basketball game and then some. However, hard drives aren't as physically tough as flash memory, so these cameras are more fragile.

There are a few other camcorder storage formats that are on the wane, including miniDV tape and DVD, so for now, it looks like flash and hard drive camcorders will be dominant in the next few years. To read more about these two formats, turn to page 23. FG

Flash Points

- Flash memory is popular for camera and camcorder recording.

- Many cameras have a small amount of internal (nonremovable) flash capacity.

- Memory card support lets you eject a card full of photos or video and pop in an empty one for longer shoots.

- Camcorders with hard drives can record for long periods of time.

BY Marty Sems

JVC Everio
GZ-MS230 Camcorder

Express Yourself
Like Never Before

If you're ready to ditch your current camcorder and that shelf full of cassette tapes, then it's high time you see all that the makers of compact memory storage camcorders have to offer. JVC's Everio camcorders use flash-based memory to store your priceless moments. The Everio GZ-MS230 ($269.95; www.jvc.com) is a step up from the basic Everio model and offers 8GB of built-in flash memory. To help you express yourself in new and creative ways, it offers plenty of extras that you'd only expect to find on professional-grade devices.

Feature-Packed & Stylish

The JVC Everio GZ-MS230 is available in black, red, and blue, and it features 8GB of built-in flash memory, which is enough to store almost two hours of Ultra mode video and almost 10 hours of Eco mode video. An SD/SDHC slot lets you enjoy even more recording capacity. This model's image enhancing extras include a high-performance, large 1/6-inch CCD image sensor with 800,000 pixels for crystal-clear video. It also features a Konica Minolta 45X dynamic zoom, a 2.7" color LCD with Laser Touch II control. Read on for a handful of exclusives that make JVC's Everio GZ-MS230 stand apart.

Time-Lapse REC

This camcorder's built-in Time-Lapse REC feature lets you create your own time-lapse masterpieces by automatically recording one video frame at a time at set intervals (you can choose between once every second all the way up to once every 80 seconds). This enables you to record short video clips of events that typically take hours to occur, such as sunsets, a spider spinning her web, or Aunt Millie applying her makeup.

Auto REC

With Auto REC enabled, you just leave the camcorder set up and on, and when a subject passes in front of the lens, the camcorder will automatically begin to record. It also shuts off after no movement. You can use Auto REC to make sure you never miss baby's first steps. It's also great for use as a surveillance system.

Advanced Image Stabilizer

Compact inexpensive camcorders tend to leave image stabilization out of their design, making high-action video jittery, jumpy, and difficult to watch. JVC's exclusive Advanced Image Stabilizer has a sophisticated camera shake compensation technology that keeps the image still, even when the shooter is keeping pace with a running subject.

Super LoLux

Filming in low-light situations can cause your video to look grainy, but JVC's Super LoLux lets users capture clear video in dimly lit scenes because the camcorder's CCD image sensor is specially tuned to deliver a more advanced sensitivity to light in dark conditions. And for especially dark situations, the camera offers a built-in LED light. FG

JVC Everio GZ-MS230 Highlights

✘ Time-Lapse REC lets you film snippets of slowly occurring events to create condensed video just like the pros.

✘ Includes 8GB of built-in flash memory.

✘ Advanced Image Stabilizer keeps the image still even if the camcorder is in motion.

✘ Super LoLux delivers superior light sensitivity for clear video results even in low light.

FirstGlimpse

Get To Know CMOS

The Eye Of The Digital Camera

When shopping for a digital camera, digital camcorder, or mobile phone, you'll often see the acronym CMOS (complementary metal-oxide semiconductor) listed next to the device's megapixel rating. CMOS is the image sensor, which means that it's responsible for converting light into an electronic signal. In this article, we'll explain what the CMOS is and how its size can affect the quality of your images.

Light Becomes Data

The CMOS is a silicon chip that's covered in millions of light-sensitive picture elements—aka pixels. Think of each miniscule pixel as an eye and the CMOS as the brain. The CMOS collects the data from every pixel and forms the information into a digital image. The number of pixels on the CMOS equates to the megapixel rating of a digital camera—but there's more to a CMOS sensor than just its pixel count.

The physical size of the CMOS can significantly affect the quality of your images.

If two cameras had the same megapixel rating but different-sized CMOS sensors (all other things equal), the camera with the larger CMOS would take better pictures. The camera with the larger CMOS would capture more light than the smaller CMOS, resulting in images that display more true-to-life color and less image grain. In particular, a camera with a larger CMOS would perform better in low-light situations, because the camera could detect a greater amount of light. The greater light-capturing ability would also allow the camera to produce darker blacks and brighter whites.

CCD & CMOS

Not all digital cameras and camcorders use a CMOS image sensor; some models feature a CCD (charge-coupled device). Experts regularly disagree about which type is better, and both types can be found in low- and high-end cameras. On the plus side, CCD and CMOS sensors function in a similar manner, so you can also apply our CMOS sensor size guidelines to CCDs. **FG**

BY Nathan Lake

It's Not About The Megapixels

The more megapixels your digital camera offers, the larger the photographs you can create with the digital images. But unless you need poster-sized prints, a 7MP or 8MP camera gives you enough pixels to produce film-quality (300 ppi [pixels per inch]) photos at a variety of sizes—including prints up to 8x10. ●

Camera Resolution	Maximum Print Size
Megapixels* (WxH pixels, approx.)	At 300 ppi (WxH inches, approx.)
5MP (2,592 x 1,944)	6x8
6MP (2,816 x 2,112)	7x9
7MP (3,072 x 2,304)	7x10
8MP (3,264 x 2,448)	8x10
9MP (3,488 x 2,616)	8x11
10MP (3,888 x 2,592)	8x13

*Megapixel = 1 million pixels

When Memories Matter

Insignia NS-DV111080F 1,080p HD Digital Camcorder

S ome moments scream to be documented in video. Take, for example, the moment a daughter says "I do," the instant a grandmother's eyes meet her new grandson's for the first time, or the fateful initial encounter between a boy and the puppy he's long desired. Moreover, such moments deserve to be preserved in the best quality possible and to be easily shared among those who matter most. Enter Insignia's NS-DV111080F ($349; www.insignia products.com), a durable 1,080p HD digital camcorder built for excellence and ensuring memories live on.

Insignia's NS-DV111080F
$349 • www.insigniaproducts.com

Quality Counts

A trip to the homeland—say, Ireland, for example—might only happen once in a lifetime, so you have to make it count. With the NS-DV111080F's prowess to capture video with 1,080p HD precision, you'll be guaranteed that the plush richness of Ireland's rolling green hills and rich history etched in the natives' faces will transfer from the real

world to digital video with crispness, clarity, and color accuracy.

With the long reach of the NS-DV-111080F's 12X optical zoom, meanwhile, you'll be able to capture everything from the rugged beauty of Galway Bay's shorelines on Ireland's west coast to the authenticity of Dublin's city streets cross country in sharp focus whether you're near or far away without sacrificing image quality. Further, not only will the NS-DV111080F's generous 3-inch LCD touchscreen help you frame and review the video, it will also enable you to easily navigate the camcorder's various menus with appreciated one-finger simplicity.

Share & Share Alike

Sometimes, the best part of returning from a trip is visibly conveying the experience with those who didn't share the privilege. The NS-DV111080F offers multiple methods to do as much, including via the camcorder's

support for SD/SDHC memory cards, which beyond storing your video can also be swapped among other compatible devices, including smartphones, notebooks, HDTVs, and digital photo frames.

The NS-DV111080F's built-in mini-USB output, meanwhile, means transferring video to a PC on which you can edit your footage into a home movie, burn it to DVD, or upload it to your blog or a social networking site is as easy as making a cable connection. Additionally, the camcorder's HDMI output will let you quickly connect the NS-DV111080F directly to an HDTV to show everyone the rollicking, homegrown Celtic band you recorded in a Dublin pub in HD glory.

In The Details

The attention to detail and durability poured into the NS-DV111080F's construction mean you'll be armed with a digital camcorder you can rely on to capture meaningful, monumental moments with the pristine focus, color balance, and brightness they deserve. **FG**

## Seeing Is Believing

Insignia's NS-DV111080F offers affordable durability, reliability, and quality via:

• 1,080p HD image quality

• 12X optical zoom

• 3-inch LCD touchscreen

• SD/SDHC memory card slot

• Mini-USB and HDMI outputs

FirstGlimpse

Designed For Your HD Needs

SanDisk's VideoHD SDHC Memory Card

WHEN YOU'RE LOOKING FOR a memory card for your HD camcorder, you must consider speed as well as capacity. The reason? Because HD camcorders require high-speed memory cards to capture video at the camcorder's highest quality settings. This is why SanDisk created its 8GB VideoHD SDHC card ($53.99; www.sandisk.com). It's rated at Class 6 to support the speed demands of today's HD camcorders, and its 8GB capacity allows you to shoot for an hour or two, rather than just 20 or 30 minutes like other memory cards. In addition to its high-performance capabilities, the VideoHD SDHC card is also durable. Read on to see the other benefits this card has to offer.

SanDisk's VideoHD card exceeds the performance rating that HD video cameras require, making it ideal for recording at a resolution of 1080p.
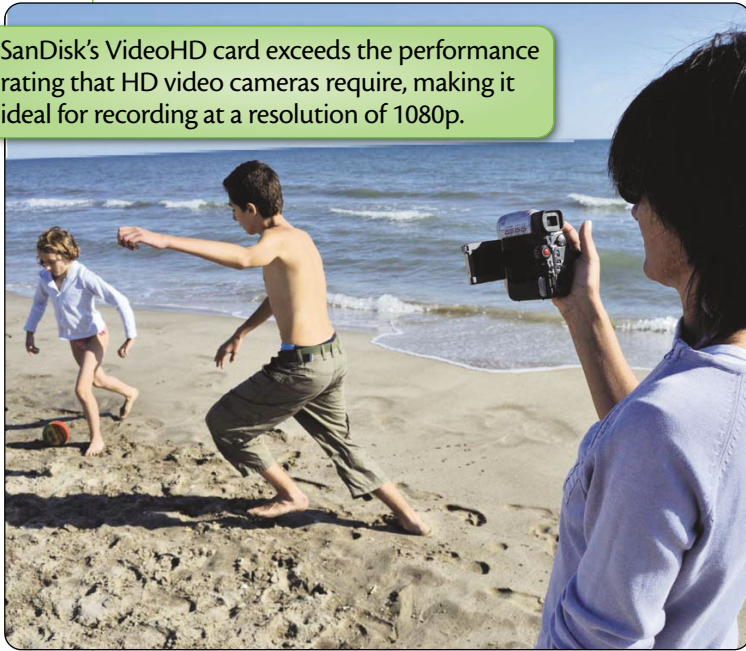
Perfect for HD camcorders that can record at fast bit rates, such as 13MBps, because the memory card allows you to capture the video with no compromises in quality

Also works great with digital cameras that offer quick burst modes for capturing several photos in a few seconds

Downloads footage quickly to your PC at 15MBps

Supports all types of video formats, such as H.264 and AVCHD

Offered with a Lifetime Limited Warranty

How Much HD Video Can You Record?

The following numbers are based on an HD camcorder that records 1080p video in the MPEG-4 H.264 format.

HD Recording Quality	Maximum (24MBps)	Fine (17MBps)	High (13MBps)	Normal (9MBps)	Extended Play (6MBps)
8GB SanDisk VideoHD SDHC MSRP: $53.99 SKU: 8774338	40 minutes	1 hour	1 hour and 20 minutes	2 hours	3 hours

FirstGlimpse

Optical vs. Digital Zoom

See The Difference

Optical Zoom

Digital Zoom

T he zoom lens is a wonderful tool. You can zoom out to capture a wide-angle landscape or zoom in and use the camera's telephoto capabilities to bring a distant subject even closer. When shopping for a point-and-shoot camera (as opposed to a D-SLR), you'll notice that each camera features an optical zoom and a digital zoom. Before you get too enthusiastic about having the extra telephoto capabilities of a digital zoom, it's important to understand the difference between optical and digital zoom and how they affect image quality.

For both examples, we will imagine that we're taking pictures with a 5MP camera that is set to capture images at the highest quality level.

Optical zoom uses the camera's lens (optics) to magnify the view. When using only optical zoom, the camera will capture an image file containing 5MP of information. Because only the camera's lens is used to capture the full amount of megapixels, your image will be sharper and smoother than with digital zoom.

Digital zoom, which you can usually turn on or off in the camera's setup menu, engages when you've zoomed in as far as you can with the optical zoom. When looking at the camera's LCD or through the viewfinder, it appears that the camera is zooming in even more, but in reality, the camera has simply enlarged part of the image and cropped the rest. By cropping the image, the camera has discarded some of the image's pixels, leaving you with an image that contains far fewer pixels than one

shot with an optical zoom. For example, using our previous 5MP camera, we take a picture that engages digital zoom. The camera crops out 2MP of image data so the image file now contains only 3MP of image data. Because we're using a 5MP camera, however, the camera must produce an image with 5MP of data. In order to do this, the camera interpolates (invents) the missing pixels and adds them to the image file. The resulting image is almost always softer than the original, and individual pixels may be visible when the picture is enlarged.

So, when you're shopping for a digital camera, ignore the digital zoom specifications. And, for the best image quality and ability to make larger prints, use only the optical zoom when shooting. FG

BY THEANO NIKITAS

FirstGlimpse

Essential

THINGS TO KNOW

AUDIO & VIDEO FILE FORMATS

Q What video formats support recording in high definition?

A AVCHD (Advanced Video Codec High Definition) and HDV (high-definition video) are the two formats that digital camcorders use to record and play back video in HD quality.

Q What is the difference between the high-definition formats?

A The AVCHD format is found on digital camcorders that record footage on hard drives, solid-state drives, and flash drives, while the HDV format is used by HD camcorders that record to tape.

Q What does MPEG stand for, and why is it important?

A MPEG (Moving Picture Experts Group) is a standard for compressing video and audio so it takes up less space on your camcorder. Digital camcorders that capture footage in the AVCHD format typically list whether they use the MPEG-2 or MPEG-4 standard, while the HDV tape format is not compressed.

Q What are the standard-definition video formats?

A Standard-definition camcorders generally record video onto DVDs using the MPEG-2 format or onto tape using the DV (Digital Video) format.

Q What types of video do digital cameras record?

A Some digital cameras record AVI (Audio Video Interleave) video, while others use the AVCHD format to record high-definition video.

Q What is the difference between MPEG-2 and MPEG-4?

A MPEG-4 is the newer and more space-efficient compression standard. Both MPEG-4 and MPEG-2 are capable of compressing HD video at resolutions up to 1080p, but a camcorder using MPEG-4 compression requires less storage space for the HD files than one that uses MPEG-2.

Q What does H.264 mean?

A Many new HD camcorders utilize H.264 compression, also known as MPEG-4 AVC, because it can deliver HD video using a minimal amount of storage without degrading picture quality. The efficient technology is also ideal for streaming HD video over your home network.

Q What types of audio formats are available on digital camcorders?

A Digital camcorders capture stereo sound, and some are capable of recording 5.1-channel surround sound.

Q How does a camcorder capture surround-sound audio?

A Some camcorders feature a built-in microphone that's capable of recording 5.1 surround sound. With other digital camcorders, you might need to invest in an external microphone that attaches to a camcorder's microphone input to capture surround-sound audio.

Q What does AC-3 mean?

A AC-3 is Dolby Digital's method of compressing audio files, and it's the common audio file compression used on digital camcorders and digital cameras.

Digital Imaging Glossary

Are you confused about what the lingo on camera boxes means? Use this glossary to help decode the world of digital imaging.

aperture—An iris-like diaphragm opening that can expand and contract the lens to let you control the amount of light that passes through it, thus affecting the exposure. The term "f-stop" is used interchangeably with aperture.

burst mode—A camera mode that lets you capture several shots consecutively after pressing the shutter only once.

CCD—A charge-coupled device is the camera's image-sensing component. It converts light into energy that can be stored as digital data on your camera.

depth of field—The area that is in focus in front of and beyond the subject of your photo.

digital zoom—Magnifies an image digitally by cropping it and filling in the rest with interpolated pixels, thus degrading the quality. Even if the numbers are impressive, never choose a camera based on digital zoom.

f-stop—See aperture. Smaller f-stop numbers mean a wider lens opening; larger f-stop numbers mean a narrower lens opening.

ISO—For digital cameras, the ISO setting measures the sensitivity to light (similar to how it does with film). Digital camera ISO settings, such as 200, 400, etc., should capture photos as if one were using film with such a speed. Lower ISO settings mean you need more light and vice versa.

LCD—The screen on the back of the camera that lets you see a live-action view of your subject or your photo after you've taken it.

lens—The apparatus on the front of the camera that gathers and directs light toward the imaging device. In a digital camera, the lens probably has both an optical and digital zoom.

megapixel—Approximately 1 million pixels. The higher the megapixel count, the higher the resolution and the more you can crop, which means (in general) better-quality photos.

memory card—Because digital cameras have very little onboard memory, they need flash memory cards to store more than a dozen or so images. The type of memory card you need depends on the make and model of your camera. Some of the most popular memory cards are Secure Digital, MultiMedia Card, Compact Flash, and Sony Memory Stick. In general, memory cards are quite small.

noise—The small statistical variations among pixels that lead to (usually) minor distortions of color in a photo.

optical zoom—The camera's mechanical ability to move the lens physically closer to your subject. With optical zoom, the higher the number (such as 5X or 10X), the better. When choosing a camera, always consider the optical zoom, not the digital zoom. Digital zoom artificially adds pixels.

resolution—The number of pixels in an image. The higher the resolution, the more detail and quality in a photo. Resolution is measured in a proportion (such as 2,272 x 1,704).

shutter—A mechanism that opens and closes to allow light to pass through the lens. You can usually control the camera's shutter speed.

shutter speed—The length of time a camera's shutter is open to let light through the lens to hit the sensor, which records the image. This is expressed in fractions of a second: For instance, a shutter speed of 1/250 means that the shutter is open for 1/250th of a second.

viewfinder—The small opening in the camera that the user looks through to frame a shot. Some digital cameras don't have a viewfinder and use only the camera's LCD to frame the shot.

white balance—Light levels are adjusted electronically to ensure whites in a certain environment are pure, leading to more lifelike colors. White balance can usually be manually adjusted, too. **FG**

FirstGlimpse

Which Point-&-Shoot Camera Is Best For You?

If you're a little confused about the most important features in a digital camera, you're not alone. In this chart, we compare features from select digital cameras, and we also explain what these features mean.

	Resolution; Optical zoom	Shutter speed	Memory card	LCD size	Battery life	ISO	Movie mode
What It Means	More pixels mean bigger and clearer prints; Moves the lens closer to your subject	A faster shutter speed will let you snap action photos without blur	Removable card that stores your photos in your camera	The LCD is the screen on the back of the camera	Based on how many shots you can take on a single charge	A higher ISO lets you take better photos in low-light settings	Lets you record short video clips on your digital camera
Kodak EasyShare M530 MSRP: $129.95* SKU 9765189	12.2MP; 3X	1/8 to 1/4,000 second	SD/SDHC	2.7 inches	N/A	Auto; Manual: 80, 100, 200, 400, 800, 1000	Yes
Casio EXILIM EX-S5BK MSRP: $129.99* SKU 9277917	10.1MP; 3X	1/2 to 1/2,000 second	SD/SDHC	2.7 inches	N/A	Auto; Manual: 64, 100, 200, 400, 800, 1600	Yes
Canon PowerShot SD1300 IS ELPH MSRP: $199.99* SKU 9766864 *See p. 42*	12.1MP; 4X	1 to 1/1,500 second	SD/SDHC/ SDXC/MMC/ MMC Plus/ HC MMC Plus	2.7 inches	240 shots	Auto; Manual: 80, 100, 200, 400, 800, 1600	Yes
Fujifilm FinePix JZ300 MSRP: $199.95* SKU 9789024	12.1MP; 10X	1/4 to 1/2,000 second	SD/SDHC	2.7 inches	N/A	Auto; Manual: 100, 200, 400, 800, 1600, 3200	Yes
Sony Cyber-shot W370 MSRP: $229.99* SKU 9757839	14.1MP; 7X	2 to 1/1,600 seconds	Memory Stick Duo/ PRO Duo/SD/SDHC	3 inches	230 shots	Auto; Manual: 80, 100, 200, 400, 800, 1600, 3200	Yes
Canon PowerShot SD1400 IS ELPH MSRP: $249.99* SKU 9766919 *See p. 43*	14.1MP; 4X	1 to 1/1,500 second	SD/SDHC/ SDXC/MMC/ MMC Plus/ HC MMC Plus	2.7 inches	230 shots	Auto; Manual: 80, 100, 200, 400, 800, 1600	Yes
Nikon Coolpix S8000 MSRP: $299.95* SKU 9758674	14.2MP; 10X	1 to 1/2,000 second	SD/SDHC	3 inches	210 shots	Auto; Manual: 100, 200, 400, 800, 1600, 3200	Yes
Nikon Coolpix P100 MSRP: $399.95* SKU 9758747	10.3MP; 26X	2 to 1/2,000 second	SD/SDHC	3 inches	250 shots	Auto; Manual: 160, 200, 400, 800, 1600, 3200	Yes

*Prices listed in this issue are for general reference and may vary from retailer pricing.

FirstGlimpse

Which D-SLR Is Best For You?

As D-SLR prices keep coming down, more photographers are turning to them, both as a first camera and as a trade-up to something better. In this chart, we'll help you sort through some of the features and performance specs from select D-SLR cameras.

	Resolution	LCD size	ISO range	Kit lens	Burst speed	Shutter speed
What It Means	Image sensor in megapixels; more means a bigger image	Diagonal measure of screen on back of camera	A higher ISO range will let you take better photos in low-light situations	Standard lens bundled with the camera body	Frames per second (fps) you can shoot while in burst mode	The wider the range, the greater the gamut of long exposures to frozen action
Sony Alpha A230L MSRP: $449.99* SKU 9342473	10.2MP	2.7 inches	100 to 3200	18-55mm	2.5fps	30 to 1/4,000 seconds
Nikon D3000 MSRP: $549.95* SKU 9456803	10.2MP	3 inches	100 to 1600	18-55mm f/3.5-5.6	3fps	30 to 1/4,000 seconds
Nikon D5000 MSRP: $629.95* SKU 9311755	12.3MP	2.7 inches	200 to 3200	18-55mm	4fps	30 to 1/4,000 seconds
Pentax K-X MSRP: $649.95* SKU 9555787	12.4MP	2.7 inches	200 to 6400	18-55mm	4.7fps	30 to 1/6,000 seconds
Olympus E-P1 MSRP: $799.99* SKU 9463573	12.3MP	3 inches	100 to 6400	14-42mm f/3.5-5.6	3fps	60 to 1/4,000 seconds
Canon EOS Rebel T2i MSRP: $899.99* SKU 9778635	18MP	3 inches	100 to 6400	18-55mm f/3.5-5.6	3.7fps	30 to 1/4,000 seconds
Pentax K-7 MSRP: $1,099.95* SKU 9412165	14.6MP	3 inches	100 to 3200	N/A (body only)	5.2fps	30 to 1/8,000 seconds
Canon EOS 7D MSRP: $1,699* SKU 9491944	18MP	3 inches	100 to 6400	N/A (body only)	8fps	30 to 1/8,000 seconds

*Prices listed in this issue are for general reference and may vary from retailer pricing.

FirstGlimpse

Which Digital Camcorder Is Best For You?

Digital camcorders come in a number of formats: DVD, hard drive, flash drive, MiniDV, and high definition are the most common. By comparing the following digital camcorders, you can determine which recording format and product best fit your style.

		LCD size	Optical zoom; Digital zoom	Recording speeds	Memory card	Digital still resolution	Lines of resolution
	What It Means	Diagonal length of viewing screen	Two methods for magnifying depth of field; optical zoom is better	The speeds a particular camcorder can utilize during recording	Compatible flash card types (cards not included unless noted)	The number of megapixels the camcorder can capture in still images	Number of lines of horizontal resolution; the higher the number, the greater the detail
	JVC Everio GZ-MS230 MSRP: $269.95* SKU 9731192 See p. 30	2.7 inches	39X; 800X	Ultra/Fine/Norm/Eco	SD/SDHC	0.3MP	480
	Sony Handycam DCR-SX63 MSRP: $299.99* SKU 9745989	2.7 inches	60X; 2,000X	HQ/SP/LP	Memory Stick PRO Duo/SD/SDHC	N/A	480
	Panasonic SDR-SW20S MSRP: $399.95* SKU 9779743	2.7 inches	10X; 700X	XP/SP/LP	SD/SDHC	N/A	480
	Insignia NS-DV111080F MSRP: $349* SKU 9769398 See p. 32	3 inches	12X; 10X	N/A	SD/SDHC	N/A	1,080
	Samsung HMX-H104 MSRP: $579.99* SKU 9369765	2.7 inches	10X; 100X	N/A	SD/SDHC	4.7MP	1,080
	Canon VIXIA HF200 MSRP: $749.99* SKU 9244267	2.7 inches	15X; 300X	MXP/FXP/XP+/SP/LP	SD/SDHC	3.3MP	1,080
	Sony Handycam HDR-XR150 MSRP: $699.99* SKU 9746014	2.7 inches	25X; 300X	FX/FH/HQ/LP	Memory Stick PRO Duo/SD/SDHC	3MP	1,080
	JVC Everio GZ-MG750BUS MSRP: $399.99* SKU 9731687	2.7 inches	39X; 800X	Ultra/Fine/Norm/Eco	microSD/microSDHC	0.3MP	480

Flash Drive

High-Definition

Hard Drive

*Prices listed in this issue are for general reference and may vary from retailer pricing.

FirstGlimpse

Which Fujifilm Digital Camera Fits Your Lifestyle?

FUJIFILM

People live their lives differently and have different needs for how they capture and share their images. This is why the FinePix line of digital cameras from Fujifilm has a camera for everyone, including the basic and trend-savvy user, the active family, and the image enthusiast—to ensure they never miss a photo opportunity.

Product Name SKU	JV100 9835594 (Black)	Z70 9766737 (Black)	XP10 9766746 (Blue)	S2700HD 9766755	JZ300 9789024	F80EXR 9788944
Additional Colors Available	9766719	9772598 9772589 9772561	9772604 9772659 9772631			
MSRP	$129.95*	$149.95*	$199.95*	$249.95*	$199.95*	$299.95*
Resolution	12MP	12MP	12MP	12MP	12MP	12MP EXR Sensor
Optical Zoom	3X	5X Periscopic	5X Periscopic	18X Wide (28mm-504mm equiv.)	10X Wide (28mm-280mm equiv.)	10X Wide (27mm-270mm equiv.)
LCD Size	2.7 inches	2.7 inches	2.7 inches	3 inches +EVF	2.7 inches	3 inches
HD Movie Capture	Yes; 1280x720	Yes; 1280x720 dual shutter	Yes; 1280x720 dual shutter	Yes; 1280x720	Yes; 1280x720	Yes; 1280x720 HDMI out
Face Detection	Yes	Yes	Yes	Yes	Yes	Yes
Auto Red-Eye Correction	Yes	Yes	Yes	Yes	Yes	Yes
Stabilization	Digital IS	Digital IS	Digital IS	Dual IS (CCD Shift)	Dual IS (CCD Shift)	Dual IS (CCD Shift)
Tracking AF	Yes	Yes	Yes	Yes	Yes	Yes
Battery Type	Rechargeable Li-Ion	Rechargeable Li-Ion	Rechargeable Li-Ion	4x AA	Rechargeable Li-Ion	Rechargeable Li-Ion
Media Card Type	SD/SDHC	SD/SDHC	SD/SDHC	SD/SDHC	SD/SDHC	SD/SDHC
Available Colors	Black (in store and online); Blue (online)	Black (in store and online); Silver, Blue, Berry (online)	Blue (in store and online); Black, Silver, Green (online)	Black (both in store and online)	Silver (online only)	Black (online only)
Coolest Features	Panorama mode, Dual Shot Mode	Facebook and YouTube tagging	Waterproof, Shockproof, Freezeproof, Dustproof	Zoom Bracketing, Instant Zoom, Panorama Mode	Metal body, only 22mm thick	Face Recognition, Pet Detection, D-Range up to 800%

* Prices listed in this issue are for general reference and may vary from retailer pricing.

4-WAY PROOF

Durable with a touch of style, the XP10 can truly keep up with you. Ready to go wherever and whenever you are, you never need to worry with this active lifestyle camera.

WATERPROOF UP TO 10 FT.
SHOCKPROOF UP TO 3.3 FT.
FREEZEPROOF TO 14°F
DUSTPROOF

HIGH-DEFINITION CAPTURE

Capture photos and movies in an HD 16:9 format to play back on your HDTV. (Some models require optional HD Player Accessory.) One touch capture on the Z70 and XP10 with both still and movie shutters.

FULL HD PHOTO 1920 x 1080

HD MOVIE

SR AUTO KNOWS WHAT'S BEST

Even under the most difficult conditions, SR AUTO detects the scene type and optimizes the camera settings to capture the best image.

Photos Without SR Auto
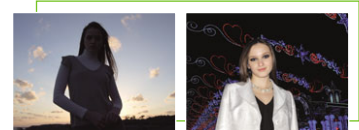
Photos With SR Auto
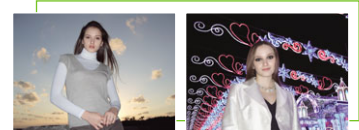
FirstGlimpse

Expand Your Creativity With A Nikon D-SLR

As you step up to a D-SLR from a point-and-shoot, new opportunities for expanding the creativity in your photos accompany higher image quality and faster shutter response. Nikon's D-SLRs are easy to use, with a host of features to help you achieve outstanding images, including in-camera editing. Whether you're new to D-SLR picture-taking or ready to upgrade your current D-SLR, Nikon has a camera to exceed expectations.

DIGITAL IMAGING

| Product Name / SKU	Nikon D3000 Kit 9456803	Nikon D5000 Kit 9311755	Nikon D90 Kit 8975184	Nikon D300S Body 9457349	Nikon D700 Body 8928985
Estimated Street Price	$549.95*	$749.95*	$1,199.95*	$1,699.95*	$2,699.95*
Compatible Lenses (for all functions)†	AF-S or AF-I lenses	AF-S or AF-I lenses	AF NIKKOR lenses (AF-I, AF-S, DX, VR, and D-/G)	AF NIKKOR lenses (AF-I, AF-S, DX, VR, and D-/G)	AF NIKKOR lenses (AF-I, AF-S, DX, VR, and D-/G)
Included Lenses	18-55mm NIKKOR VR Image Stabilization Lens	18-55mm NIKKOR VR Image Stabilization Lens	18-105mm NIKKOR VR Image Stabilization Lens	Available separately	Available separately
LCD Monitor	3 inches 230K-dot Resolution	2.7 inches Vari-angle 230K-dot Resolution	3 inches 921K-dot Resolution	3 inches 921K-dot Resolution	3 inches 921K-dot Resolution
Resolution	10.2MP	12.3MP	12.3MP	12.3MP	12.1MP
Sensor Type	DX-format CCD	DX-format CMOS	DX-format CMOS	DX-format CMOS	FX-format CMOS
Low-Noise ISO Sensitivity	100 to 1600 (expanded 3200)	200 to 3200 (expanded 100 and 6400)	200 to 3200 (expanded 100 and 6400)	200 to 3200 (expanded 100 and 6400)	200 to 6400 (expanded 100, 12800, and 25600)
Shutter Speed	30 to 1/4,000 seconds	30 to 1/4,000 seconds	30 to 1/4,000 seconds	30 to 1/8,000 seconds	30 to 1/8,000 seconds
Built-in Flash	Yes (automatic or user-activated)	Yes (automatic or user-activated)	Yes (automatic or user-activated)	Yes (user-activated)	Yes (user-activated)
Burst Mode	Up to 3fps	Up to 4fps	Up to 4.5fps	Up to 7fps	Up to 5fps
Picture Control Settings	Standard, Neutral, Vivid, Monochrome Portrait, and Landscape	Nine customizable plus Standard, Portrait, and Landscape	Nine customizable plus Standard, Portrait, Landscape, and more	Nine customizable plus Standard, Neutral, Vivid, Monochrome, and more	Nine customizable plus Standard, Neutral, Vivid, Monochrome, and more
In-Camera Editing Features	13 Functions, including: Trim, Red-eye correction, Soft Filter, and more	16 Functions, including: Trim, D-Lighting, Red-eye correction, Image Overlay, and more	13 Functions, including: Trim, D-Lighting, Image Overlay, Monochrome, and more	10 Functions, including: Trim, Monochrome, D-Lighting, Filter Effects, Edit Movie, and more	7 Functions, including: Trim, D-Lighting, Image Overlay, Filter Effects, Monochrome, and more
HD Movie Mode	(Stop-Motion Movie Mode only)	Yes with Sound	Yes with Sound	Yes with Sound and Stereo Mic Input	No
Compatible Storage Media	SD, SDHC	SD, SDHC	SD, SDHC	CompactFlash Type I/II; SD and SDHC	CompactFlash Type I
Included Battery	EN-EL9a Lithium-ion Rechargeable Battery	EN-EL9a Lithium-ion Rechargeable Battery	EN-EL3e Lithium-ion Rechargeable Battery	EN-EL3e Lithium-ion Rechargeable Battery	EN-EL3e Lithium-ion Rechargeable Battery
Battery Life (shots per charge)	500 (CIPA)	510 (CIPA)	850 (CIPA)	950 (CIPA); 3,000 (Nikon Standard)	1,000 (CIPA)

* Prices listed in this issue are for general reference and may vary from retailer pricing.   † For complete compatibility see www.nikonusa.com.

FirstGlimpse

Canon

Digital Camera
Packed With High-Performance Features

Canon PowerShot SD1300 IS Digital ELPH

MSRP: $199.99
SKUs: 9766864 (Silver)
      9766891 (Blue)

www.usa.canon.com

Quick Overview

The PowerShot SD1300 IS Digital ELPH camera is a sleek, artistic piece of technology that combines image stabilization technology with a 4X zoom to ensure you can capture the best shots possible. Once you set the camera to Smart AUTO, it can select the proper camera settings for you based on 18 predefined shooting situations. Plus, the included 2.7-inch PureColor System LCD makes it easy to view your results.

Perfect For

Anyone looking for high-performance features, such as a wide-angle lens and image stabilization, in a small and compact design.

Outstanding Benefits

- 12.1MP resolution makes it possible to print large images without sacrificing clarity and detail.
- Smart AUTO mode intelligently selects the proper settings for the camera based on 18 predefined shooting situations.
- A 28mm wide-angle lens, 4X optical zoom, and Canon's Optical Image Stabilizer.
- Low-light mode allows you to capture memories in dimly-lit settings.
- Bright, clear 2.7-inch PureColor System LCD can be used for taking and reviewing pictures.

Coolest Feature

The Canon PureColor System LCD is more than just a viewing screen: It features scratch-resistant durability, an anti-reflective coating, and a Night Display mode for reviewing photos in low-light scenarios.

FirstGlimpse

Digital Camera
Stunning Shots Delivered Every Time

Canon PowerShot SD1400 IS Digital ELPH

MSRP: $249.99

SKUs: 9766937 (Orange)
      9766919 (Black)

www.usa.canon.com

Quick Overview

The Canon SD1400 IS Digital ELPH is a fashionable camera that sports all the features you need to capture great-looking shots. With a 4X optical zoom, you can get closer to your subjects, and the 14MP resolution will give your snapshots unmatched detail and clarity. The camera's intelligent features, such as Smart AUTO and Smart Shutter, will also ensure your images are dramatic and memorable.

Perfect For

Anyone looking for an easy-to-use camera that can help them take great shots without much setup.

Outstanding Benefits

- 14.1-megapixel resolution, and a large, crisp 2.7-inch PureColor System LCD captures more in your frame.
- Sleek, slim, sophisticated camera available in orange or black.
- 28mm wide-angle lens, 4X optical zoom, and optical image stabilizer.
- 720p HD movie shooting capability plus HDMI output connector for easy playback of video and photos on your HDTV.
- Smart AUTO intelligently selects the proper settings for the camera based on 22 predefined shooting situations.
- New Smart Shutter technology automatically takes a picture when your subject smiles or winks.

Coolest Feature

You can shoot 720p HD videos and watch them on your HDTV by connecting your camera via the included HDMI output connector.

NOTEWORTHY
Accessories & Services

Prices for digital camcorders and cameras continue to fall as their video and picture quality improves, which is especially good news for first-time buyers or those looking to upgrade. Pairing your new camcorder or camera with the right products will bring you better photography results. Here are some must-have accessories you should consider buying to get the most out of your digital imaging device. **FG**

UV FILTER
- Protects digital camcorder and D-SLR lenses from dust, dirt, fingerprints, and scratches
- Helps you get clearer, more detailed results when you're shooting in bright conditions

EXTRA MEDIA
- Keep spare memory cards on hand so you can snap away without having to worry about running out of storage space
- Consider having several memory cards with smaller capacities instead of one card with a larger capacity; that way, if something goes wrong with one card, you'll still have a backup
- For your digital camcorder, keep more recording media in your bag than you think you'll need, just in case

ADDITIONAL LENSES/CONVERTER LENSES
- Extra lenses for D-SLRs and converter lenses for digital camcorders can enhance your results by extending your field of view, reducing glare, and more
- Telephoto lenses enable you to zoom in from far away, wide-angle lenses give you the ability to get a full view even if you're close to the subject, and macro lenses will let you achieve up-close, detailed shots of your photo subject

EXTERNAL FLASH
- Light up your subjects from greater distances
- Offers better control of lighting conditions when taking photos by directing the angle of the flash

SPARE BATTERIES & CHARGERS
- Make sure you're never caught without the power needed to capture the perfect moment
- Whether your camera uses proprietary batteries or AAs, keep at least one fully charged spare or set in your camera bag
- An additional battery charger will give you the flexibility to power up your camera batteries anywhere you're headed, even if you're traveling

TRIPOD
- Tripods are an easy way to ensure steady video footage
- Pan while recording video in one smooth motion
- Use a tripod and your camera's timer to get a picture of the entire group without needing someone to man the camera
- Keeps your camera steady while you're shooting close-up or distance shots, which can prevent photo blurring

REMOTE SWITCH
- A longer cable lets you snap photos without having to touch the camera, which can also reduce camera shake
- May enable the user to lock the shutter for longer exposure times

DIGITAL IMAGING SERVICES
Once you've set your sights on the camera or camcorder you want, consider taking advantage of the digital imaging services offered by your local CE retailer. Not only can you protect your investment, but you can also discover photography and videography skills that will make your photos and videos picture-perfect.

- D-SLR or Camcorder Service Plan
- D-SLR Training Course
- Camcorder Training Course

FirstGlimpse

Corel PaintShop Photo Pro X3

Be Proud Of Your Photos

A nything worth doing is worth doing well. It's a far more ambitious goal, however, to do everything well.

A direct descendant of the Jasc Software favorite, Corel's PaintShop Photo Pro X3 ($99; www.corel .com) continues the tradition of providing powerful photo editing tools that nevertheless shoot for ease of use. But image processing isn't the whole story.

More than any earlier version of the software, X3 lends support to the rest of the tasks digital photography involves. From organizational tools to sharing mechanisms, the latest PaintShop Photo Pro aims to make you a more effective photographer overall—even when you're ostensibly supposed to be relaxing with a hobby.

Part of becoming more effective is to become more productive. Corel made PaintShop Photo Pro X3 faster than its predecessors to save you time. A new batch processing feature follows the same logic, letting you edit a representative photo and then easily apply those settings to the remainder of the group.

The time-saving features don't stop there. Although you may occasionally delve into the PaintShop Photo Pro X3's more advanced tools, its Express Lab will make your post-vacation photo processing feel much less like going back to work. New items such as Sharpen, Local Tone Mapping, and Color Balance can dramatically enhance your European architecture pics in seconds.

The new Smart Carver tool can seamlessly remove a stray passerby or your daughter's fizzled French flame, while X3's Object Extractor can relocate something from one photo to another. For example, if you and your spouse took turns snapping images of your family at points of Old World interest, PaintShop Photo Pro X3 can help you assemble a shot with the whole family in it for your holiday card photo.

Corel PaintShop Photo Pro X3
$99 • www.corel.com

There's much more, of course, to entice the enthusiast as well as the novice. X3 has support for bokeh shots, 16-bit RAW files, and even high-def video. It's compatible with 32- and 64-bit versions of Windows XP, Vista, and 7. FG

Reasons To Upgrade

New features in Corel PaintShop Photo Pro X3 let you turn your art into a masterpiece.

Feature	What You Can Do With It
HD Video Slideshows	Bring your photo slideshows to life by adding high-definition video clips
Easy Photo Sharing	Upload to Facebook, Flickr, YouTube, mobile devices, and more
Smart Carver	Make something in a photo expand, shrink, or disappear completely
Easy Batch Processing	Edit one photo in a group, and then apply the same changes to all of them
Vibrancy	Punch up undersaturated areas of a photo
Photo Organizer	Browse previews, thumbnails, and EXIF/IPTC data to quickly find the shots you want
Express Lab	Use improved tools to apply quick-hit edits in no time
Project Creator	Create your own photobooks, collages, cards, and more
HDR Photo Merge	Combine same-subject shots with different exposure levels to bring out the best in a light/dark scene

HOW TO BUY

An All-In-One Computer

Everything In A Single Case

Describing an all-in-one computer is simple: The monitor houses all the components (save the keyboard and mouse). Aside from the fact that these don't require you to purchase multiple PC components, you can take advantage of the unique features all-in-one PCs supply.

The space-saving benefits are obvious—you can place an all-in-one PC in numerous home or office environments where there is a tight corner of space or minimal countertop room. For instance, you could purchase a widescreen 18-inch all-in-one for a dorm room desk and allocate the remaining desk (or floor) space for a printer and external hard drive.

It's What's On The Inside That Counts

- All-in-one computers are ideal for tight spaces in the kitchen, college dorm rooms, or studio apartments.

- They can function as a PC/HDTV combo, thanks to high-resolution monitors, Blu-ray Disc players, and powerful graphics.

- Touchscreen PCs let you open music, photo, and video apps using multitouch gestures.

All-in-ones don't require a lot of setup. And in terms of design, there are two interface options available: non-touchscreen PCs that always require the use of a keyboard and mouse and touchscreen PCs, which you can operate using your fingers, computer peripherals, or a remote control.

Non-Touchscreen PCs

As you browse the non-touchscreen all-in-one PC options, you'll find that their specifications are very comparable to that of a powerful desktop PC. With dual-core processing power, plenty of RAM (4GB on average), and a serious amount of storage (160GB to 1TB), many non-touchscreen PCs provide all the right components for a competitive PC experience. Some models include built-in Web cams, Bluetooth connectivity, and a wireless LAN (for Wi-Fi connectivity). If you know that much of your time in front of the monitor will be spent word processing, opt for a non-touchscreen PC with a stand-alone keyboard.

Touchscreen PCs

Touchscreen PCs are one of a kind because they allow you to access programs or manipulate media (such as edit photos) by simply touching and moving your fingers on the display. You'll do this by pinching, rotating, flicking, and dragging your fingers in order to interact with the PC.

A touchscreen PC equipped with an HDTV tuner and PVR (personal video recorder) lets you record and play back TV shows broadcast in HD, so you can watch your favorite programs with your

> ## All-in-ones don't require a lot of setup.

family using your all-in-one computer instead of your TV. Display sizes can range from 20 to 25 inches, large enough for you to enjoy your media collection. S-Video, HDMI, and Composite outputs also give you the option to connect to various peripheral devices, such as a Blu-ray Disc player or stereo sound system.

What's Best For You?

Remember, both non-touchscreen and touchscreen PCs will take up less space, but touchscreen models give you a touch-based display that can give you an interactive PC experience. **FG**

BY JOANNA SAFFORD

FirstGlimpse

Organization Made Simple
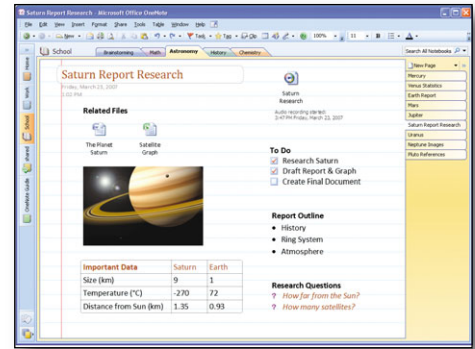## Microsoft Office 2007's OneNote

Working on a complex project will test the skills of even the most detailed and thorough organizer. And finding a way to share project files with others in a systematic, orderly way can have additional challenges. Whether you purchase it as a part of Microsoft's Office Home and Student 2007 or Office Ultimate 2007 ($149.95 and $679.95, respectively; www.microsoft.com), OneNote 2007 provides a solution to these problems. Using digital notebooks, you can store a variety of individual or group project files in a single, easy-to-access place.

Get Organized With OneNote 2007

Rather than scour dozens of email attachments, file folders, and images, OneNote 2007 allows you to store and organize a wide array of information, such as Microsoft Office documents, photos, emails, audio and video files, Web research, or digital notes, in what's called a digital notebook. Notebooks can be made public or private and shared with other users both online and offline. With so much information that's easily accessible, OneNote 2007 is ideal for academic or business projects, but it can be put to good use by families, as well. It can act as a collaborative space, allowing multiple people to organize and reference important information, such as upcoming wedding plans or baseball season schedules. Additionally, users who have a Windows Mobile phone can conveniently access OneNote 2007 no matter where they are and use their phone to upload more material to a digital notebook via text message, photo, or voice recording. **FG**

"TechG" Guarantee:
From Office 2007 To Office 2010

With Microsoft Office 2010 arriving this summer, Microsoft wants to ensure that you remain productive with its latest version of Office. Thanks to the Technology Guarantee Program, you will be able to upgrade to Office 2010 at no extra cost. This means any Office version that contains OneNote 2007 will upgrade to include OneNote 2010. To take advantage of this offer, you need to purchase a version of Office 2007 between March 5 and Sept. 30, install and activate the software suite by Sept. 30, and then head to www.office.com/techg to download Office 2010 or select the DVD upgrade option for an additional fee.

Select Your Microsoft Office 2007

With so many different versions of Microsoft Office 2007 available, you can be sure you can find the suite that best matches your lifestyle needs. And, to make sure you continue to use the most up-to-date applications, any of the following Office 2007 products are eligible for the Technology Guarantee Program. ●

	Home and Student	Standard	Small Business	Professional	Ultimate
Word 2007 Create great-looking documents.	✔	✔	✔	✔	✔
Excel® 2007 Make eye-catching spreadsheets and charts.	✔	✔	✔	✔	✔
PowerPoint® 2007 Create stunning presentations.	✔	✔	✔	✔	✔
OneNote® 2007 Organize your notes and information.	✔				✔
Outlook® Manage calendar and e-mail.		✔			
Outlook® 2007 with Business Contact Manager Manage e-mail, calendar and business contacts.			✔	✔	✔
Publisher 2007 Design marketing materials.			✔	✔	✔
Access™ 2007 Create and manage databases.				✔	✔
InfoPath® 2007 Create forms to collect information.				✔	✔
Groove® 2007 Collaborate with your work team.					✔

FirstGlimpse

Typing Shouldn't Be A Pain

Microsoft's Natural Ergonomic Keyboard 4000

Twist your forearms, bend your wrists, and stretch your fingers. Now hold them that way for a few hours. We'll wait.

If you spend hours every day doing something that requires unnatural motions, sooner or later your body will let you know. For example, typing on a straight, flat computer keyboard can make you sore because you have to bend your wrists to line up your fingers on the home row of keys. Aches can quickly spread to your neck, shoulders, and other areas. Eventually, if left uncorrected, bad keyboard ergonomics can cause RSI (repetitive stress injury) or even the numbness and sharp pain of carpal tunnel syndrome.

Without a doubt, the best way to avoid RSI is to use tools designed to fit the human body. Continuing our example, studies have shown that ergonomic keyboards can drastically reduce the instances of RSI in the workplace and the accompanying levels of pain.

Ergonomic Benefits

With this in mind, Microsoft came up with a USB keyboard that's a little different-looking than the average ergonomic 'board. The Natural Ergonomic Keyboard 4000 ($49.95; www.microsoft.com/hardware) differs from its more run-of-the-mill siblings with a split-key layout, which better matches the angles of your forearms than a straight keyboard's horizontal rows. A split keyboard also keeps your little fingers closer to keys on the outer edges, such as Tab and Backspace.

And yet, the 4000 goes even further. Microsoft gave the keyboard a dished design, as though it took a scoop out of each hand's set of keys. This brings outer and middle keys closer to your fingers. At the same time, the curves tilt the keys so that your fingers strike them straight downward along the axes of their mechanisms instead of hitting them at an angle.

Finally, Microsoft added a removable extra to give the keyboard a bit of tilt. We're not talking about the forward tilt built into computer keyboards for the last three decades, however. Instead, the 4000's detachable palm lift fits under the front edge of the 'board to give it a reverse slope. Ergonomic research has shown that a shallow tilt away from the user does the best job of keeping the wrists straight, which minimizes inflammation and other problems.

Each of these design choices makes an incremental difference. Taken all together, they make typing much less strenuous on your wrists, fingers, and forearms. The Natural Ergonomic Keyboard 4000 is compatible with both Macs and PCs. **FG**

A Natural Fit

- Split, peaked keyboard design for maximum comfort
- Scalloped key beds reduce typing strain on both hands
- Reverse slope attachment helps to keep your wrists straight

FirstGlimpse

Router Roundup

They're Not All The Same

NOT ALL ROUTERS ARE CREATED EQUAL. Although they all serve the same essential purpose—enabling multiple devices to use an Internet connection—there are different types of routers designed for different needs. **FG**

BY SETH COLANER
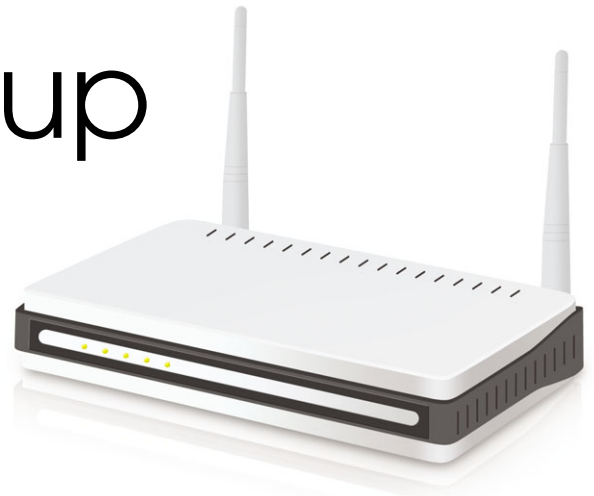
Wireless

The key word with wireless routers is convenience. Wireless routers enable many devices to access the Internet through a single Internet connection without needing to connect them directly to a router with an Ethernet cable. Any device that has wireless Internet capabilities can connect to a wireless network within a certain range.

Therefore, you could be in the living room using a laptop while your spouse is looking up recipes on his smartphone in the kitchen, and your daughter can print her homework to the printer in the computer room from another notebook in her bedroom.

Perfect For: Typical Web browsing from any location within the home and audio or video streaming to wireless-enabled devices, such as notebooks or HDTVs.

Wired

In order to access the Internet with a wired router, a device must be connected directly to the router via Ethernet cable. Thus, you're tethered to the router, and you can only connect as many devices as there are Ethernet ports on the router. Further, using a wired connection means running Ethernet cable throughout your home, which can be difficult and expensive in some cases.

However, wired routers offer greater security than wireless routers, and they aren't prone to the same type of interference. For example, if you're streaming a movie on a wireless connection, its stability can be threatened by other devices using the 2.4GHz band, such as cordless telephones and other computers. Additionally, because a wireless signal transmits over airwaves, it can be easily intercepted without specific security protocols in place. A wired router doesn't have those issues.

Perfect For: Environments where security and reliable performance are paramount, such as home-theater setups.

Multimedia

Multimedia routers are designed with dual-band technology, which allows for better handling of media content. These are N routers (the fastest wireless Internet standard available) and operate on both the 2.4GHz and 5GHz frequencies and are able to parse out more than one stream of data to and from the Internet.

For example, if you're gaming online and downloading a big file at the same time, a multimedia router will route those two streams in such a way that they won't interfere with each other, which results in better performance. The 5GHz band, which handles the heavy traffic for activities such as HD video streaming and online gaming, is less cluttered, leading to less interference and better performance.

Perfect For: Multitasking with typical Internet use and high-bandwidth applications such as online gaming and audio or HD video streaming.

Router Summary

- Wireless routers offer the convenience of connecting to the Internet without having to physically connect a device to a router.

- Wired routers are more secure than wireless routers and offer more consistent performance.

- Multimedia routers have dual-band capabilities to more efficiently handle high volumes of data, such as online games and HD video.

COMPUTERS

FirstGlimpse

The Wild World Of RAM

Making Sense Of PC Memory

Whether buying a new PC or upgrading an old one, few components deserve as much attention as RAM, particularly if you desire smooth performance in high-end games, rendering HD video, and running other resource-intensive programs. Skimp on RAM, and choppy gameplay, stuttering video, and stalled programs could occur. The following details RAM basics and how to calculate how much RAM you need.
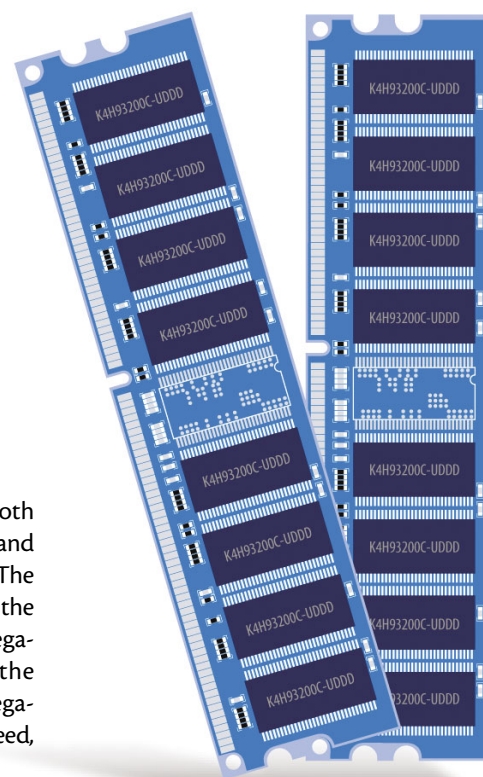
Crunch The Numbers

RAM provides a PC a temporary storage area where programs read and write data to and from more quickly than with a hard drive. RAM comes in narrow, rectangular sticks that are characterized by their speed (measured in megahertz) and size (gigabytes and megabytes), and they plug into motherboard slots. Current PCs use DDR2 (double-data rate) and DDR3 RAM, though most new PCs use DDR3, which is faster and consumes less energy.

Confusingly, RAM is referred to by both an industry name, such as PC3-6400, and a standard name, such as DDR3-800. The "6400" represents the maximum data the RAM can transfer per second in megabytes, or 6,400MBps. The "800" is the RAM's clock speed measured in megahertz. Overall, the faster the clock speed, the better the performance.

The Memory Meter

Historically, advice to new PC buyers has been to buy as much RAM as able. If you only email, Web surf, and run basic office apps, however, 8GB RAM is overkill. Microsoft, in fact, only recommends 1GB RAM for 32-bit Windows 7 versions and 2GB for 64-bit versions. Further, 32-bit Windows versions can only handle about 4GB RAM.

In general, any new PC buyer should look for 2GB RAM minimum (1GB if buying a netbook). Frequent multitaskers, multimedia users, and home-office owners should start at 3GB but consider 4GB. High-end gamers, multimedia editors, and those running resource-taxing applications should start at 4GB but consider more if running a 64-bit Windows OS. Conveniently, most PC manufacturers detail the RAM options available for their models.

The Upgrade Path

If you believe a RAM upgrade could improve your current system's performance, know that you can't slap just any stick in the motherboard, as motherboards are designed to accept specific RAM types. DDR3 memory, for example, isn't backward-compatible with a DDR2-based board. Typically, you can find the RAM your PC accepts in the PC's users manual. You can also use an online memory configuration tool, which is available on the Web.

Rule Your RAM

Learning the finer points of RAM can be bewildering due to the numbers and abbreviations at play, but the effort is worth it in terms of RAM's overall importance to system performance. **FG**

RAM Reminders

- Consider 2GB RAM the minimum for any new PC.
- The faster the RAM's memory clock speed, the better.
- 32-bit Windows versions can only recognize about 4GB RAM.
- RAM is referred to by both standard and industry names.
- Check the specific RAM your motherboard accepts before upgrading.
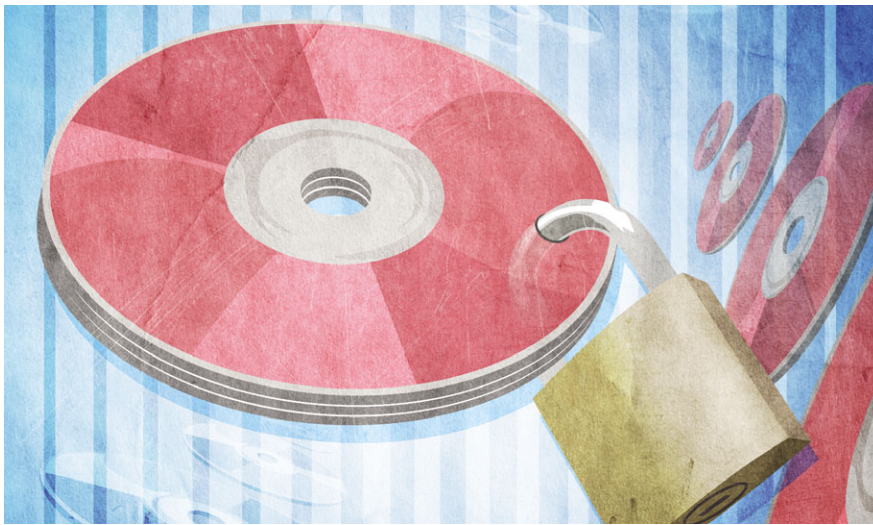
BY BLAINE FLAMIG

FirstGlimpse

Antivirus & Antispyware Software

Do You Get What You Pay For?

Round-the-clock protection: It's essential for a Windows PC in today's world. If you own a PC and you run Windows, you need security software with antivirus and antispyware capabilities.

Remarkably for such a lucrative market—households typically pay $50 or more per year to subscribe to the most recent virus definition updates—there are several capable freebies in the antivirus/antispyware genre.

And yet, if all you use is free software, can you really consider your PC safe? And if the unthinkable happens and your computer catches an infection, will there be anyone you can call for help?

In most cases, free editions of antivirus and antispyware utilities offer less protection than their vendors' pay versions. Their purpose is to get users comfortable with their brands so when it's time to upgrade to more comprehensive security measures, people will buy the software that's most familiar to them.

One key difference between free and pay versions is that the gratis editions lack phone-in tech support. Another is the fact that you're not supposed to use a freebie at work or in a home business. And some free AV/AS software doesn't automatically update itself, instead requiring you to manually click an update button when you remember to. In addition, a few free editions only detect malware and won't remove it.

Some free offerings lack real-time shields that keep your system from becoming infected. Instead, all you get is a scanning and removal tool, which, in certain cases, isn't enough to return your PC to normal and recover all of your personal data unaltered.

One popular free tool gives you antivirus/antispyware with continuous protection, automatic updating, and search engine results scanning that warns you away from potentially infested Web sites. What it *doesn't* provide is protection against rootkits, which can hide other malware from conventional antivirus/antispyware scans. The pay version of the software does detect and remove rootkits, however. It also comes with phone-in tech support plus protection while you're instant messaging, downloading files, or just surfing around.

Finally, there are Internet security suites. These usually add a firewall and antispam capabilities to the typical gamut of antivirus/antispyware. Suites offer utilities that are made to complement each other without conflict. They can also save you money over buying individual security apps piecemeal.

Strong protection is even more important if you're buying antivirus/antispyware for a novice user. Beginners aren't as wary about opening email attachments or spotting fake security pop-ups, so chances are that free software won't entirely cover their needs. Besides, if a problem does crop up, a paid subscription will give them someone to call for tech support . . . instead of you. 🄵🄶

BY MARTY SEMS

FirstGlimpse

Essential THINGS TO KNOW

NETWORKS

Q What networking options do I have for my home?

A Today, your options include powerline, wireless, and Ethernet (wired) network products. Note that your network may use two or all of these technologies.

Q What is powerline networking?

A Instead of sending data over an Ethernet cable or using a wireless connection, powerline networks transmit it through a home's or building's electrical wiring.

Q How does a powerline network connect to my computer or router?

A You plug a powerline network adapter into an unprotected wall outlet and connect the adapter to your PC's or router's LAN port with an Ethernet data cable. Do the same on a second PC, and the two computers will be linked by the powerline network.

Q How secure is powerline?

A Without encryption, it's more secure than a wireless network but less so than a wired connection. Enable encryption, however, and the slim chance that an eavesdropper could wiretap an outlet outside your home practically vanishes.

Q How fast is powerline?

A Adapters are rated for theoretical speeds, such as 85Mbps or 108Mbps. As with all networking technologies, real-world throughput will be less in practice because networking signals carry administrative traffic as well as user data.

Q What is the current state of the art in wireless networking?

A Adapters and routers that support the recently ratified 802.11n specification can give you more reliable connections with a longer range and a speed of up to 300Mbps (in theory).

Q What is Draft N?

A Many networking devices were Draft N-compliant before 802.11n was fully finalized. They may or may not give you all of the current standard's speed, range, and reliability benefits.

Q Is 802.11n backward-compatible with my existing devices?

A Yes, it is, just as 802.11g was backward-compatible with earlier 802.11b devices. However, an 802.11b/g adapter or router will slow down an 802.11n network's performance.

Q How fast is an Ethernet connection?

A This longtime standard for wired networking currently runs at Gigabit (1Gbps) speeds on home and small-office devices. Gigabit is backward-compatible with 100Mbps and 10Mbps gear.

Q What do I need to ensure the fastest network speeds?

A The adapters, cables, and router on your wired network must all support the same speed, such as Ethernet's 1Gbps mode, or transmissions may drop to the speed of the slowest device.

Which Notebook Computer Is Best For You?

A notebook computer is a pretty big purchase for most people, and it's usually a bit overwhelming, too. This chart compares the features and specs from several different types of notebook models.

	Operating system	Processor	Hard drive size; RAM	Screen size	Dimensions; Weight	Optical drives; Media card reader
What It Means	The software (usually Windows or Mac OS X) that controls your computer	Chip that controls the computer (typically, a bigger number is better)	How much data the computer can hold; Memory that's read and written to	The diagonal measurement of the notebook's screen	Height x width x depth; How much the laptop weighs	Drives that can read and write discs; Slots that read media cards without a separate peripheral
Acer AS5532-5535 MSRP: $349.99* SKU 9555769	Windows 7 Home Premium	1.6GHz AMD Athlon	160GB; 3GB	15.6 inches	1.5x14.4x 10.8 inches; N/A	Double-layer DVD±RW/CD-RW; Yes
HP Pavilion G62-144DX MSRP: $599.99* SKU 9769412	Windows 7 Home Premium	2.13GHz Intel Core i3	500GB; 4GB	15.6 inches	1.25 to 1.44 x14.72x9.7 inches; 5.5 pounds	Double-layer DVD±RW/CD-RW; Yes
Toshiba Satellite E205-S1904 MSRP: $899* SKU 9701191	Windows 7 Home Premium	2.2GHz Intel Core i5	500GB; 4GB	14 inches	1.22x13.7x 9.57 inches; 5.1 pounds	Double-layer DVD±RW/CD-RW; Yes
Apple MacBook MSRP: $999* SKU 9611541	Mac OS X 10.6 Snow Leopard	2.26GHz Intel Core 2 Duo	250GB; 2GB	13.3 inches	1.08x13x9.12 inches; 4.7 pounds	Double-layer DVD±RW/CD-RW; No
Dell Studio s15z-2249CPN MSRP: $999* SKU 9684515	Windows 7 Home Premium	2.2GHz Intel Core i5	500GB; 4GB	15.6 inches	N/A	Double-layer DVD±RW/CD-RW; Yes
Asus G60JX-RBBX05 MSRP: $999.99* SKU 9736955	Windows 7 Home Premium	2.26GHz Intel Core i5	500GB; 4GB	16 inches	1.6x10.4x 14.8 inches; 7.5 pounds	Double-layer DVD±RW/CD-RW; Yes
Sony VAIO VPCS111FM/S MSRP: $1,049* SKU 9701289	Windows 7 Home Premium	2.2GHz Intel Core i5	500GB; 4GB	13.3 inches	1.08 to 1.24x 12.95x9 inches; 4.4 pounds	Double-layer DVD±RW/CD-RW; Yes
Alienware M15x MSRP: $1,999* SKU 9722255	Windows 7 Home Premium	1.6GHz Intel Core i7	320GB; 4GB	15.6 inches	1.9x14.9x 12.2 inches; 9 pounds	Double-layer DVD±RW; Yes

*Prices listed in this issue are for general reference and may vary from retailer pricing.

COMPUTERS

FirstGlimpse

Which Netbook Is Best For You?

Netbooks don't offer the full capabilities that notebooks do, but these compact devices are ideal for those who need to stay connected while on the go. To find the netbook that fits your mobility needs, here's a comparison of the latest models.

	Operating system	Processor	Hard drive size; RAM	Graphics card	Memory card reader	Ports
What It Means	The software (usually Windows XP or Linux) that controls your PC	Chip that controls the computer (typically, a bigger number is better)	How much data the computer can hold; Memory that's read and written to	Controls the quality of the video and images you see on-screen	Slots that can read media cards without a separate peripheral	Sockets that give your computer access to different peripherals
eMachines EM250-1915 MSRP: $299.99* SKU 9740848	Windows XP Home	1.6GHz Intel Atom	160GB; 1GB	Intel Graphics Media Accelerator 950	SD/MMC/ MS/MS Pro/xD-Picture Card	3 USB; 1 Ethernet
Asus Eee PC 1005HAB MSRP: $299.99* SKU 9708112	Windows 7 Starter	1.6GHz Intel Atom	160GB; 1GB	Intel UMA Graphics	SD/SDHC/ MMC	3 USB; 1 Ethernet
MSI U100-641US MSRP: $329.99* SKU 9178775	Windows XP Home	1.6GHz Intel Atom	160GB; 1GB	Intel Graphics Media Accelerator 950	SD/MMC/ MS/MS Pro	3 USB; 1 Ethernet; 1 VGA
Gateway LT2122u MSRP: $329.99* SKU 9728498	Windows 7 Starter	1.6GHz Intel Atom	250GB; 1GB	Intel Graphics Media Accelerator 3150	SD/MMC/ MS/MS Pro/xD-Picture Card	3 USB; 1 Ethernet; 1 VGA
Samsung NP-N150-JA03US MSRP: $349.99* SKU 9727287	Windows 7 Starter	1.6GHz Intel Atom	160GB; 1GB	Intel Graphics Media Accelerator 3150	SD/SDHC/ MMC	3 USB; 1 Ethernet; 1 VGA
HP 210-1080NR MSRP: $379.99* SKU 9739458	Windows 7 Starter	1.6GHz Intel Atom	250GB; 1GB	Intel Graphics Media Accelerator 3150	SD/MMC/ MS/MS Pro/xD-Picture Card	3 USB; 1 Ethernet; 1 VGA
Sony VPCW211AX/L MSRP: $449.99* SKU 9724183	Windows 7 Starter	1.6GHz Intel Atom	250GB; 1GB	Intel Graphics Media Accelerator 3150	SD/MS Duo	2 USB; 1 Ethernet; 1 VGA
Lenovo S10-3T-0651 MSRP: $449.99* SKU 9717941	Windows 7 Starter	1.6GHz Intel Atom	250GB; 1GB	Intel Graphics Media Accelerator 3150	SD/MMC/ MS/MS Pro	2 USB; 1 Ethernet

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FirstGlimpse

Which All-In-One PC Is Right For You?

An all-in-one computer is compact, thanks to all its hardware being placed in the monitor. Some models offer a touchscreen interface that lets you access functions by selecting on-screen items with your finger, while others rely on a wireless mouse and keyboard. To see which all-in-one PC fits your needs, check out the chart below.

	Operating system	Processor	Hard drive size; RAM	Display; Optical drive	Ports	Graphics card
What It Means	The software (usually Windows or Mac OS X) that controls your computer	Chip that controls the computer (typically, a bigger number is better)	How much data the computer can hold; Memory that's read and written to	Display size (measured diagonally); Disc drive included with the system	Inputs the computer has for accessing peripherals	Controls the quality of your video and images
MSI WindTop AE1900-14SUS MSRP: $399.99* SKU 9571395	Windows XP Home	1.6GHz Intel Atom	160GB;1GB	18.5 inches; Double-layer DVD±RW/ CD-RW	4 USB, 1 Ethernet, media card reader	Intel Graphics Media Accelerator 950
HP Pavilion MS225 MSRP: $699.99* SKU 9704055	Windows 7 Home Premium	1.6GHz AMD Athlon II Dual-Core	320GB; 4GB	18.5 inches; Double-layer DVD±RW/ CD-RW	6 USB, 1 Ethernet, media card reader	ATI Radeon HD 3200
Sony VAIO VGC-JS450F/S MSRP: $999.99* SKU 9561592	Windows 7 Home Premium	2.7GHz Intel Pentium	500GB; 4GB	20.1 inches; Double-layer DVD±RW/ BD/CD-RW	1 USB, 1 Ethernet, media card reader	Nvidia GeForce 9300M GS
Apple iMac MC413LL/A MSRP: $1,499.99* SKU 9611569	Mac OS X v10.6 Snow Leopard	3.06GHz Intel Core 2 Duo	1TB; 4GB	21.5 inches; Double-layer DVD±RW/ CD-RW	4 USB, 1 Ethernet, 1 FireWire, media card reader	ATI Radeon HD 4670
Apple iMac MB952LL/A MSRP: $1,699* SKU 9611587	Mac OS X v10.6 Snow Leopard	3.06GHz Intel Core 2 Duo	1TB; 4GB	27 inches; Double-layer DVD±RW/ CD-RW	4 USB, 1 Ethernet, 1 FireWire, media card reader	ATI Radeon HD 4670
Gateway ZX4800-02 MSRP: $749.99* SKU 9527942	Windows 7 Home Premium	2.1GHz Intel Pentium	750GB; 4GB	20 inches; Double-layer DVD±RW/ CD-RW	6 USB, 1 Ethernet, media card reader	Intel Graphics Media Accelerator X4500HD
HP TouchSmart 300-1020 MSRP: $899.99* SKU 9563171	Windows 7 Home Premium	2.7GHz AMD Athlon II	500GB; 4GB	20 inches; Double-layer DVD±RW/ CD-RW	5 USB, 1 Ethernet, media card reader	ATI Radeon HD 3200
HP TouchSmart 600-1055 MSRP: $1,599.99* SKU 9555821	Windows 7 Home Premium	2.13GHz Intel Core 2 Duo	750GB; 4GB	23 inches; Double-layer DVD±RW/ BD/CD-RW	6 USB, 1 Ethernet, media card reader	Nvidia GeForce GT230M

Touchscreens

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FirstGlimpse

The Core Of The Matter

Intel's 2010 Family Of Core Processors

Why You Need A High-Performance Processor

Commonly known as the brain of the computer, the processor is a vital component that ensures your computer can efficiently handle several tasks all at once. In the past, you didn't need a high-performance processor to tackle your basic computing needs. Due to the technological advancements in gaming, social networking, and media streaming, you no longer can settle for a basic processor. And you'll also want to make sure your processor can adapt to future applications, too. For these reasons, you need to select a computer processor that's fast enough to tackle your needs today and in the future.

To meet these constantly changing requirements, Intel designed and integrated its Core i3, Core i5, and Core i7 processors in select notebooks and desktops. Because these processors include "smart" features, you'll be able to enhance your computer's performance and get more out of your PC. In effect, these smart technologies allow you to accomplish more tasks in a short amount of time. To see which member of Intel's 2010 Core processor family is the best match for your computing needs, consult the chart below.

|	Summary	Technology Notes	Perfect For
intel CORE i7 inside	Processors carrying the i7 brand offer the ultimate in smart performance; the combination of speed and smart performance features makes them the most powerful processors Intel produces for consumer PCs	8-way processing, plus Intel Turbo Boost Technology that gives you additional speed when necessary and improves performance	HD-quality gaming and content creation; people who run demanding applications and need processors that can handle the widest range of computing-intensive tasks and situations
intel CORE i5 inside	These make up the midrange members of the three brands of the Core family of processors. i5 processors offer smart performance features with a speed boost	4-way processing, plus Intel Turbo Boost Technology that gives you additional speed when necessary and improves performance	HD-quality computing; people who need processors that can handle a wide variety of computing tasks and situations
intel CORE i3 inside	i3 processors give users access to smart performance features but are the lower-powered members of the Core family of processors	4-way processing	HD-quality computing; users who want smart performance technologies but at a lower price

FirstGlimpse

Software Listings
Get More Out Of Your PC

Computers can be used to create greeting cards, play games, balance your checkbook, and more. The thing is, most of these functions aren't available straight out of the box. To fully harness your computer's potential, you'll need to buy software. Here are some options.

Art/Illustration/Graphics
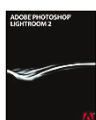
Adobe Photoshop Lightroom 2
$299*
www.adobe.com

This photo-management software from Adobe lets you quickly and easily import, process, manage, and showcase your images.

Corel PaintShop Photo Pro X3
$99.99*
www.corel.com

Corel PaintShop Photo Pro X3 lets you manage, edit, and share your digital photos. You can make automatic fixes in the enhanced Express Lab or you can use the included advanced editing tools.

Encore The Print Shop 2.0 Deluxe
$49.99*
www.encore.com

Create sophisticated print projects using the Wizard Design tool or by choosing a ready-made template. Projects include banners, calendars, greeting cards, invitations, and more. You can add your photos for a personal touch.

Roxio Creator 2010
$99.99*
www.roxio.com

Use Roxio Creator 2010 to easily capture, enhance, and save your photos, videos, and audio projects. Sharing is available using a variety of methods. It also includes tutorials for advanced users and beginners.

Audio/Video

Pinnacle Studio Ultimate Collection
$129.99*
www.pinnaclesys.com

Pinnacle Studio Ultimate Collection comes with a full set of plug-ins and a Chroma-key green screen for advanced effects, editing, and production.

Roxio Toast 10 Titanium For Macs
$99.99*
www.roxio.com

Use Toast 10 Titanium to burn audio tracks, video clips, and other data to disc. You can also convert files for playback on other devices.

Cakewalk Music Creator 5
$39.99*
www.cakewalk.com

A user-friendly interface lets you bring your music to life and give it a professional sound. You can record, transcribe, and print your very own music.

Apple Final Cut Express 4
$199*
www.apple.com

A drag-and-drop interface provides seamless movement between editing, trimming, and adding effects to your videos. The software is compatible with popular HD formats, including HDV and AVCHD.

Business Applications

Microsoft Office Home and Student 2007
$149.95*
www.microsoft.com

The Home and Student version of Microsoft Office 2007 includes Word, PowerPoint, Excel, and OneNote, which meets the basic consumer's needs perfectly.

Adobe Acrobat 9 Standard (Upgrade)
$99*
www.adobe.com

Upgrade to Adobe Acrobat 9 Standard to easily create, combine, and manage various PDF documents with improved features.

Intuit Quicken Home & Business 2010
$99.99*
www.quicken.intuit.com

The 2010 version of Quicken Home and Business includes automatic bill reminders and a one-page view of your finances. Plus, it shows you where you are spending and where you can save.

TurboTax Business Federal + E-File 2009
$129.95*
www.turbotax.intuit.com

Corporations, partnerships, and LLCs can complete a federal business income tax return, and a free federal e-file is included with purchase.

COMPUTERS

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Games/ Entertainment

2K Games Sid Meier's Civilization IV: The Complete Edition
$39.99*
www.2kgames.com
Get the complete Civilization IV experience with the DRM-free version of classic Civilization IV plus three expansions.

Disney Interactive Studio Alice In Wonderland
$19.99*
disney.go.com/disney interactivestudios/
Inspired by the Tim Burton film, this game lets you fall down the rabbit hole and experience Alice's adventure in Wonderland. You can play as the Mad Hatter, White Rabbit, or another character from the film to help Alice on her journey.

Electronic Arts The Sims 3
$49.95*
www.ea.com
Create your very own Sims. Customize their personalities, appearances, and homes and send them out into the world to explore the neighborhood and meet new friends.

Lego Indiana Jones 2: The Adventure Continues
$29.99*
www.lucasarts.com
Explore the locations from all four films and build your own levels and environments. And, all of your favorite characters are depicted in Lego form.

Home Productivity

Nuance Dragon NaturallySpeaking 10 Preferred
$199*
www.nuance.com
Dictate emails, reports, and documents much faster than you can type by letting Dragon NaturallySpeaking do the typing for you. The software has an accuracy rate of up to 99%.

Apple MobileMe
$99*
www.apple.com
MobileMe, Apple's Internet service, lets you keep your email, contacts, and calendar up-to-date across your iPhone, iPod touch, Mac, and PC. It also lets you store and share documents online via iDisk, and you can manage everything online through a suite of Web applications at www.me.com.

DeLorme Street Atlas USA 2010 Plus
$39.95*
www.delorme.com
Street Atlas USA 2010 Plus is updated with new roads and road names, and it's now ready to use on any of your favorite devices, such as GPSes, netbooks, computers, and smartphones.

Susteen Data Pilot Backup & Sync Kit (LG)
$24.99*
www.datapilot.com
Back up and sync your cell phone memory to your computer with a backup and sync kit. Kits for other phone manufacturers are also available.

Security/ Utilities

Kaspersky Lab Internet Security 2010
$79.95*
www.kaspersky.com
Kaspersky Internet Security 2010 includes protection from the latest viruses, spyware, and malware threats.

Kaspersky Lab Anti-Virus 2010
$59.95*
www.kaspersky.com
Kaspersky Anti-Virus 2010 includes essential protection against Internet threats, such as viruses, spyware, Trojans, and more as well as phishing and identity theft defense.

Webroot AntiVirus With Spy Sweeper 2010
$39.95*
www.webroot.com
Protect up to three computers from viruses and spyware. Spy Sweeper stops both known and potential threats by blocking suspicious activity and is compatible with Microsoft's Windows 7 operating system.

Trend Micro AntiVirus + AntiSpyware
$39.95*
www.trendmicro.com
Automatic scans, updates, and outbreak alerts make it easy to safeguard data and files. It protects against viruses, worms, spyware, and Trojan horses, keeping your personal data safe.

System Clean-Up & Repair

Avanquest Fix-It Utilities 10 Professional
$49.95*
www.avanquest.com
Fix-It Utilities 10 Professional can make your computer run like new. It performs more than 250 tests to see what is slowing your computer down and then fixes the problem, giving you better performance.

iolo System Mechanic
$49.95*
www.iolo.com
With System Mechanic, you can find and fix errors and fragmentation on your PC, clean out clutter, and optimize your system for best performance.

Acronis True Image Home 2010
$49.99*
www.acronis.com
This software backs up your entire computer, including the operating system, files, settings, and more, so you can easily recreate your system in the event of data loss.

iolo DriveScrubber
$29.95*
www.iolo.com
When it's time to get rid of your old computer, use DriveScrubber to ensure all of your personal data has been deleted. DriveScrubber will wipe your entire drive, including free space, and restore damaged drives.

Computing Glossary

Shopping for a computer can be intimidating, especially with all of the complex terminology. Here, we explain some common computer jargon.

Bluetooth—A short-range wireless standard that connects devices such as computers, printers, PDAs, and digital cameras so they can be used together without being connected physically with a cord.

broadband—Network connections that transmit high-speed Internet access. Broadband speed varies depending on the provider. Cable companies offer speeds of around 8 to 11Mbps, whereas phone companies offer DSL (Digital Subscriber Line), which supports speeds of 3 to 5Mbps.

CRT (cathode-ray tube)—An old analog display technology for TVs and computer monitors. It features an electron gun illuminating phosphor dots that line the inside of a glass tube. When the phosphors are lit, they display on-screen images. CRTs consume a great deal of power and are heavy and bulky. Many CRTs support digital signals, though these degrade when converted to analog.

dual-core processor—This integrated circuit, which controls the computer, features two processors, each with its own cache, on a single die or chassis. In a dual-core configuration, the operating system has two processors to handle instructions, speeding up the computer and its ability to multitask.

Ethernet—A widely used LAN protocol in which computers and networks are physically linked with a cord.

firewall—Hardware or software that limits access by a network or another outside source to your computer; it also may limit your computer's access to the network. These security measures are designed to protect your computer from outsiders who'd like to exploit it in some way. By the same token, firewalls may prevent infected files on your computer from accessing the larger network and spreading the problem to other users.

LAN (local-area network)—A group of computers that are physically connected by wires so they can communicate with one another and share information.

LCD—Liquid-crystal display technology sandwiches liquid crystals between thin sheets of glass. The crystals twist and untwist to allow and block light from a backlight, forming the images you see. LCDs are thinner, lighter, and consume less power than CRTs. Initially used mostly in notebook PCs, you'll now find LCD TVs and computer monitors, and they are also in digital cameras, cell phones, portable DVD players, and PDAs, among others.

office suite—Productivity software, such as Microsoft Office, StarOffice, and OpenOffice, that often includes word processing, spreadsheet, presentation, database, and financial tools.

operating system—The software, such as Windows XP, Vista, or 7 and Mac OS X, that controls a computer and its peripherals and serves as the primary interface for users.

processor—Also known as a microprocessor or the CPU, this integrated circuit controls the computer.

RAM (random-access memory)—A standard type of memory that's read from and written to by the CPU and hardware.

upgradeable—This term refers to the ability to add or swap out hardware to boost a computer's performance, increase its speed, or replace a defective or obsolete device or component. For instance, you may add more memory, replace an old CRT with a widescreen LCD, or swap out an older video card for a newer one that features an ATSC TV tuner so you can watch digital TV on your computer. Look for a computer with expansion slots or empty bays.

FirstGlimpse

NOTEWORTHY
Accessories & Services

A computer is a big investment, and now that you've taken the plunge, it's time to decide what accessories you need to go along with that shiny new purchase. We've rounded up several of our favorite extras for every computer owner. Whether you have a laptop or desktop, be sure to add these items to your shopping list to complete your computing experience. FG

KEYBOARD
- An ergonomic design can cut down on the wrist strain associated with carpal tunnel syndrome
- Bluetooth connectivity lends itself to a tidy desk because there's one less wire to contend with
- A specialty model, such as a gaming or media keyboard, adds functionality to your pastime of choice

EXTERNAL HARD DRIVE
- Protect precious video and photo memories: Back up to an external hard drive
- Keep your computer running more efficiently by saving large files, such as your media collection, on an external drive

CLEANING KIT
- Specially designed cleaners will keep your computer screen clean without running the risk of scratching its surface
- Cloths are often made of low-conductivity material in order to reduce static

PRINTER
- A quality photo printer will eliminate trips to the drugstore for 4x6 prints and give you the ability to instantly share your photo memories
- An all-in-one model is the perfect addition for any busy family that needs a device that can operate as a copier, scanner, fax, and printer

USB HUB
- Offers an affordable way to connect all of your peripherals, even if you have more gadgets than USB ports
- Adds the convenience of easy USB access—no more reaching behind your computer to plug in your USB devices

MOUSE
- A wireless mouse will cut down on cable clutter at your desk and also offers the convenience of portability for laptop use
- A gaming mouse can deliver better accuracy and speed for the ultimate in control
- Consider customizable buttons if you want to be able to access media, files, or programs with one-touch access

SURGE PROTECTOR
- Ensure the electrical current running to your desktop or laptop computer doesn't exceed proper levels
- Portable models will protect your laptop when you're on the go for work or play

WEB CAM
- Bridge the gap between long-distance family and friends with online video chatting by adding a Web cam to your setup

COMPUTING SERVICES
To keep your desktop or laptop computer in tip-top shape, take advantage of the computing services offered at your local CE retailer. They can help you keep your machine running smoothly and free from the dangers that lurk online.

- Computer Setup & Networking
- Virus & Spyware Removal
- Data Backup & Recovery
- Hardware & Software Upgrades
- Training & Consultation

FLO TV™ Personal Television

Don't Miss Season Finales, Premieres & Everything In Between

T he FLO TV™ Personal Television delivers live TV on a mobile device that features high-quality picture and sound and a 3.5-inch touchscreen display. With it, you can make sure you have access to all your favorite TV programming, even if you're not at home.

Finales To Go

Springtime brings the season finales of many popular network shows, and these are the episodes when babies are born, couples reunite, and mystery plots are revealed. Not only is this can't-miss programming, but it is also can't-wait programming.

With FLO TV™, you can take shows such as "30 Rock," "Parenthood," and "The Biggest Loser" with you, so you don't miss their big endings. Or tune in to CBS Mobile for the season finales of "CSI," "Medium," or "NCIS." And don't forget "24" and "Glee" on FOX Mobile. Additionally, you can enjoy programming with the FLO TV™ service from ABC Mobile, CNN Mobile, COMEDY CENTRAL, Disney Channel, ESPN MobileTV, MTV, nickelodeon, and more.

Primetime On Your Time

You can watch live sports, breaking news, and hit shows all when they happen or at their regular times. But the FLO TV™ service has programming that's designed with your mobile lifestyle in mind, which means you can watch primetime shows when it's most convenient for you. With this unique variety of live, simulcast, or time-shifted programming, there's always something on, and it's always something you want to watch.

As you say goodbye to some of your favorite shows with season finales, many reality TV programs will step in with their April premieres. On MTV, you have popular hits such as "Real World/Road Rules Challenge," "The Hills," "The City," and "Jersey Shore." Plus, you'll be able to catch "LOST" and "Flash Forward" on ABC Mobile as well as "Glee" on FOX Mobile.

Sports & News

Springtime is also synonymous with the start of baseball season. ESPN MobileTV brings you the games live, so you can catch your favorite team even if you're away. And with channels such as CNN Mobile, CNBC, FOX News, and MSNBC, you can keep up with the news while you're on the go.

In addition to great programming on your time, six months of service is included when you purchase a FLO TV™

FLO TV™ Personal Television
$199.99 • www.flotv.com

Personal Television now through May 15.* Service activation for a FLO TV™ Personal Television is simple. All you need to do is visit flotv.com or call 888-99-FLOTV. [FG]

Get Going With FLO TV™

- The FLO TV™ Personal Television features a 3.5-inch touchscreen, an easy-to-use program guide, and built-in speakers.

- Access programming from ABC Mobile TV, Adult Swim Mobile, CBS Mobile, CNBC, CNN Mobile, COMEDY CENTRAL, Disney Chanel, ESPN MobileTV, FOX Mobile, FOX News Chanel, msnbc, MTV, NBC 2Go, nickelodeon, and more.

- With hit daytime, primetime, and late night shows plus live sports, breaking news, and family programming, there's something for everyone.

PORTABLE DEVICES

*Taxes not included. Addtional fees/charges may apply. Monthly service required; currently $14.99. Service not available everywhere. Must activate by 5/16/10. Programming subject to change / blackout. See www.flotv.com for addtional details.

HOW TO BUY

A Remote Car Starter

Know No Heat Nor Cold

In many parts of the United States, this year's winter was one of the worst in recent memory. And if you feel as though you've already spent enough of your life scraping ice from your car's windshield or sitting in a frozen car waiting for it to heat up, now's the time to invest in a remote car starter kit that lets you start your car from inside your home or office. The remote starter will also help keep your car from feeling like an oven on the upcoming hot summer days, because you can pump a few minutes of air conditioning into the car before you leave the house. Here, we'll cover what you'll need to know when purchasing a remote car starter for your vehicle.

Can My Vehicle Use A Remote Car Starter?

Remote car starters are sold in kits that are generally compatible with electronic fuel-injected vehicles with automatic transmissions. Some kits are also capable of operating manual transmission cars or trucks. To be completely sure of compatibility, it's best to ask an in-store technician, who may also be able to install the remote car starter for you for an additional cost. Remote car starter manufacturers generally recommend professional installation, because the process involves splicing a wiring harness (an assembly of wires with preinstalled terminals) and working inside the car's dash.

Range Issues

Most remote car starters list how far away they'll work from, and if you park a good distance from your home or work, you'll want to double-check that the remote can start your car from inside wherever you're located—a remote starter is not too helpful if you still have to go outside in the heat or cold to be within transmitter range.

People who park in a location where they can't see if their car is running should consider a remote car starter that features two-way operation, which means that the key fob remote can indicate if the car or truck has actually started. Some models will also tell you if the vehicle is locked or if the security system is active.

Extra Features

In addition to remote start capabilities, some kits also include a security system that will sound an alarm if someone attempts to break into your vehicle. Some remotes also give you the ability to sound a panic alarm in emergency situations or include buttons for popping the trunk, honking the horn, or turning off the vehicle's dome light. A few kits are even compatible for remote start using an iPhone or iPod touch rather than a remote. FG

BY NATHAN LAKE

Get Started With Remote Start

- Compatible with nearly all fuel-injected vehicles with automatic transmissions, but check for compatibility with your vehicle before purchase.

- It's advisable to have a professional install the remote starter for you.

- Make sure the remote has enough range to start your car from wherever you are.

- Some remote starter kits also include a security system or other extra features.

FirstGlimpse

What Can An MP3 Player Store?

Find An MP3 Player Compatible With Your Needs

The biggest mistake you can make when buying an MP3 player is to get one that isn't compatible with the Web sites you want to download music files from. It's also important to find out which other file formats—such as JPEG photo and H.264 video files—the player can support and where you can find them or how you can create them.

We'll help your shopping process by giving you an overview of the file types MP3 players support and explaining why players have such a range of storage capacities for different file types.

Audio Files

One common question shoppers have is whether an MP3 player can play the songs they have on CDs. Most portable music players can, as long as they work with a media application, such as Apple iTunes (www.apple.com) or Windows Media Player (www.microsoft.com), which converts a WAV file, a standard audio file commonly found on PCs and CDs. The media application compresses big WAVs into much smaller files, such as an MP3 or WMA.

An MP3 file is about 3MB, which is about one-tenth the size of a WAV file. WMA (Windows Media Audio) files are even smaller—about half the size of an MP3.

AAC is the primary format used by Apple products, including the iPod and iPhone. It's also the format of files you buy from iTunes.

Other common audio file formats that are used include:

- ATRAC3 files are compatible with Sony MP3 players. (Sony MP3 players, however, are also able to play other file formats.)

- AIFF is the standard audio format for Mac computers.

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- RA is the RealNetworks' audio format, and RAX is the Secure Real Audio format.

- OGG is an open-source codec, which means there is no licensing fee for downloading these files.

Photo Files

Digital cameras, the likely source of the photos you'll transfer to an MP3 player, save images in JPEG format. You'll want to make sure that the player you buy supports JPEG files if it has the ability to display photos.

Other image file formats include BMP, GIF, TIFF, and PNG, which are commonly found in photo-editing and graphics applications.

Video Files

MP3 players that feature video playback work with one or more of the following video file formats:

- WMV is a compressed video format developed by Microsoft.

- H.264/MPEG-4/AVC is a standard for highly compressed video used for storing HD files.

- DivX, a video compression format created by DivX, supports HD videos. It's also supported by Windows Media Player.

- M4V is a file type based on MPEG-4 available from the Apple iTunes Store in the form of music videos, TV shows, and feature movies.

Compatible Sources

Once you determine which file formats the player supports, you need to identify the sources that can provide content in those formats. We'll focus on

music sites because music is the primary reason people use MP3 players.

The following file types are either available from the service or ones you can use with the service's application in creating playlists and burning CDs.

- **iTunes.** The music you buy at iTunes is in the AAC format. You may use the iTunes jukebox to convert WAV files found on CDs.

You'll want to make sure that the player you buy supports JPEG files if it has the ability to display photos.

- **Rhapsody (www.rhapsody.com).** This site supports MP3, WMA, AAC, RA, and RAX formats.

- **Napster (www.napster.com).** Most tracks from Napster are in the WMA format.

- **Vorbis (www.vorbis.com).** If your player can play OGG files, then visit Vorbis to get a list of other sites that let you download free OGG music files.

Actual Capacity

You will have access to most, but not all, of the storage capacity of an MP3 player because a portion of it is needed for formatting and other data management functions.

Check out *First Glimpse*'s MP3 Player Comparison Chart on page 68 to see how much you can store on a variety of available players.

Manufacturers base the number of files you can store on standards that depend on the file type. For example,

some manufacturers estimate the number of songs you can store on their players based on 128Kbps in each WMA file. But MP3 files are larger than WMA files, so count on a lower number of songs if you load a player with MP3 files instead of (or in addition to) WMA files.

If the player has the capacity to store photos and/or videos, then the storage capacities will vary for each. Whereas the average size of a four-minute music file is more than 3MB, one JPEG file may be a fraction of that size—1MB or less. But JPEG sizes also depend on the resolution and compression of the camera that captured the image. So, one high-res JPEG could be as large as a typical music file.

Video file sizes range widely, again because of varying standards. Some manufacturers determine the video capacity of MP3 players in terms of *total hours* of videos they store as opposed to the *number* of video files.

Informed Expectations

The key to contentment with your MP3 player begins with realistic, informed expectations of what and how much it can store. Find out which file formats the device works with and then make sure those formats are compatible with the Web sites and devices you use the most. FG

BY RACHEL DEROWITSCH

FirstGlimpse

Complement Your MP3 Player

Accessories For Music Lovers

If you're a music lover, an MP3 player is probably an essential in your daily life, and the perfect pair of headphones is likely just as important. But sometimes, you need more than just earbuds to get the most out of your MP3 player. Read on for some other accessory options that can enhance your listening experience.

Headphone splitters. If you want to listen to your music with a friend or let both of your children listen to an audio book at the same time, you need a headphone splitter for your MP3 player. This accessory essentially replicates the capabilities of your MP3 player's headphone jack—it includes more than one plug input for multiple headphones on one end and a 3.5mm plug to connect to your MP3 player on the other.

Perfect For: People who want to listen to their music with another person.

MP3 player docks. An MP3 player dock will play your player's music over a set of speakers rather than through your headphones, letting you listen during a party or while you're cleaning the house. All you will need to do is plug the MP3 player into the provided slot and press play. The music you select on your player will then play over the dock's speakers. Most models charge your player while it's plugged in, and some can function as clock radios, meaning

you can listen to your personalized playlists as you fall asleep or choose a specific song to wake up to.

Perfect For: People who want to listen to their music without being tethered to an MP3 player with headphones.

FM transmitters. While you're driving around town, an FM transmitter can play the music from your MP3 player over your car speakers. These plug into your car's cigarette lighter and use open FM radio frequencies to wirelessly send your player's music to your car's stereo system. Most models will also charge your player, so its battery isn't drained by the time you get to your destination.

Perfect For: Commuters or frequent travelers who want to listen to their MP3 players over their car speakers.

Cases. Your MP3 player is an investment, so you should try to protect it from damage that can be caused by drops, spills, and other accidents. There are several options when selecting an MP3 player case, such as screen overlays, silicone sleeves, and hard plastic styles, so you'll be able to find one with features that fit both your player and your lifestyle.

Perfect For: People who need to keep their player safe during the daily grind. **FG**

BY WHITNEY TURCO

Accessory Checklist

- Headphone splitters let you listen to music with a friend.

- An MP3 player dock plays your music through speakers rather than headphones.

- FM transmitters play music through your car speakers.

- Cases keep your player safe from daily hazards.

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Essential THINGS TO KNOW

PERSONAL MEDIA PLAYERS

Q What is a personal media player?

A A personal media player lets you play music, video, and/or view photos. These come in various shapes and sizes, and some include features such as Internet connectivity, TV program streaming, and DVD playback.

Q Can I store all of my music, photos, and videos on one media player?

A Yes, many media players have enough storage and file format support for you to keep a large portion or all of your media collection on the player's hard drive.

Q What is the difference between a touchscreen and a standard display?

A A touchscreen display lets you move and manipulate applications and data on one screen via touch sensors. A standard display will feature press buttons or a combination of an LCD and buttons.

Q What type of TV channels can I stream to a personal media player?

A Some personal media players that function as on-the-go televisions let you access mobile programming from major news stations, sports, and entertainment channels.

Q What kind of outputs do portable DVD players support for sharing media content?

A Portable DVD players can include Composite video outputs, standard A/V outputs, and/or a headphone jack.

Q What screen options are available on portable DVD players?

A A common DVD player design is the clamshell (fold-down), but you might also find a widescreen slate style for personal video enjoyment.

Q How do I access Internet-connected content on my personal media player?

A If a personal media player supports Wi-Fi, 3G, or Bluetooth connectivity, you can access online content via a Wi-Fi hotspot, 3G network, or an Internet-connected device (using Bluetooth only).

Q Do MP3 players support memory cards?

A Yes, many MP3 players can store music and other media on removable memory cards. Common formats are SD, SDHC, and microSD.

Q Can I record video using an MP3 player?

A Yes, on select models. You can use the built-in video camera to record what's going on around you and then post videos on the Internet to share with your friends.

Q What type of applications can I run on an MP3 player?

A Certain MP3 players support an almost unlimited number of apps, while others are designed to be compatible with specific apps appropriated for a single device. Some examples include social networking apps, online encyclopedia apps, and instant messaging apps.

MP3 Player Glossary

W ho doesn't want an MP3 player? It can help you relax, provide motivation, and keep you up-to-date on news. When you head to your local CE retailer to snag one, make sure you have this glossary so you can choose the perfect model.

AAC (Advanced Audio Codec)—An audio compression technology and the format used by iTunes.

Click Wheel—Apple's proprietary circular control on the front of the iPod.

Certified For Windows Vista—A Microsoft certification that ensures portable devices, such as MP3 players, and media, such as digital music and videos, are compatible with each other. This was once called PlaysForSure.

download—In terms of digital music, downloading is when you retrieve a song from an Internet site or another network connection and save it to your computer or digital music player. You'll download songs from music service Web sites such as iTunes, Napster, or Rhapsody.

DRM (Digital Rights Management)—A security mechanism for digital media. A common DRM scheme for digital music involves getting a license file to authorize playback of a free or purchased song.

earbuds—Small circular devices you put into your ears that serve the same function as headphones. Music players come with their own earbuds, but you can, of course, purchase a separate pair that is more comfortable or of better quality.

flash memory—Solid-state memory with no moving parts that is lightweight and small. In terms of digital music players, a flash-based player is lighter and smaller than a hard drive-based player, and it also won't skip. Thus, flash-based players are popular for use during exercise. However, the capacity of a flash drive isn't as large as a hard drive-based player.

FM tuner—If built into your music player, an FM tuner lets you listen to local radio broadcasts.

hard drive—Storage that uses rigid platters inside a fixed casing. In terms of digital music players, a hard drive-based player is larger and heavier than a flash-based player. Because of the moving parts (the platters), hard drive-based players are prone to skipping, but capacities are larger than flash drive capacities.

iTunes—An application that loads onto your computer and lets you play, organize, and download and purchase music, videos, podcasts, and television shows for a portable media player or computer.

MP3—Perhaps the most popular digital audio encoding format. It compresses audio to about one-twelfth the original size while still providing excellent sound. In general, a 1MB MP3 file will last about one minute.

playlist—A queue of songs a user creates to play on a computer, burn to a CD, or transfer to an MP3 player. The playlist includes only directions to the location of the songs, not the actual songs.
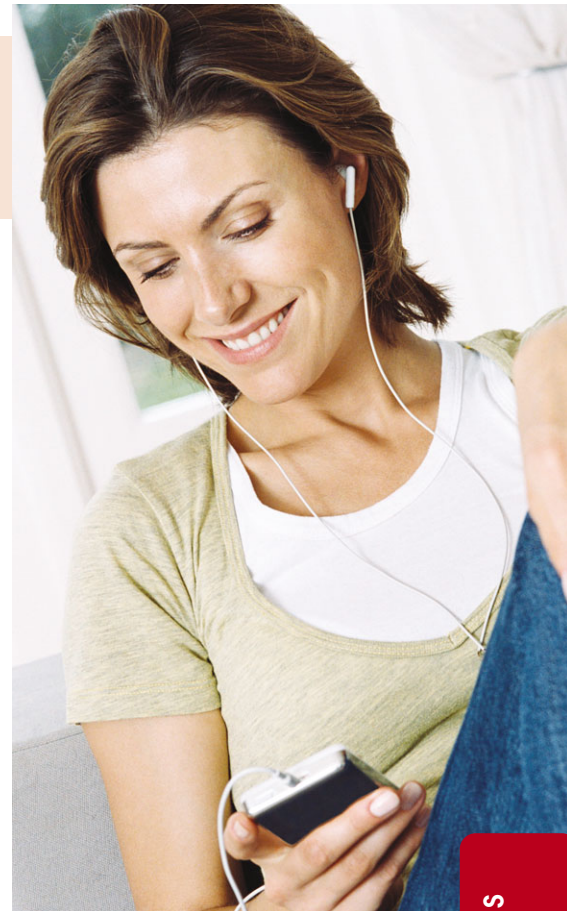
podcast—A downloadable episode that is similar to a radio program. A user can subscribe to a podcast for updated episodes, or she can download podcasts one at a time.

screen—The display on the front of a portable music player. A player's screen can either display in color or black and white.

WMA (Windows Media Audio)—A digital audio format created by Microsoft to compete with the MP3 format. These are smaller than MP3s.

widescreen—A screen that has an aspect ratio of 16:9.

Which MP3 Player Is Best For You?

iPods are cool, sure, but you have other choices when it comes to listening to your tunes. This chart compares the most important—and coolest—features from select MP3 players.

	Memory type	Capacity	Songs	Video; FM tuner capabilities	Colors	Battery life
What It Means	Hard drive (moving parts, more capacity) or flash (no moving parts)	How much memory the player has	Based on four-minute songs at 128Kbps, the number a player can hold	Some MP3 players can play video or let you listen to radio stations	Several players offer a variety of color choices	How long the battery will last when playing music
SanDisk Sansa Clip+ MSRP: $39.99*; $49.99* SKU 9448564	Flash	2GB; 4GB	500; 1,000	No; Yes	Black, red, blue	15 hours
Apple iPod shuffle MSRP: $59*; $79* SKU 9229765	Flash	2GB; 4GB	500; 1,000 (AAC)	Neither	Black, silver, pink, green, blue	10 hours
Sony W Series Walkman MSRP: $69.99* SKU 9667433	Flash	2GB	N/A	Neither	Black	12 hours
Sony E Series Walkman MSRP: $79.95* SKU 9443792	Flash	8GB	N/A	Both	Black	30 hours
Finis SwiMP3 MSRP: $149.99* SKU 9525515	Flash	1GB	240	Neither	Blue	8 hours
Apple iPod nano MSRP: $149*; $179* SKU 9416376	Flash	8GB; 16GB	2,000; 4,000 (AAC)	Both	Pink, orange, green, blue, purple, black, silver	24 hours
Apple iPod touch MSRP: $199*; $299*; $399* SKU 8771732	Flash	8GB; 32GB; 64GB	1,750; 7,000; 14,000 (AAC)	Yes; No	Black	30 hours
Microsoft Zune HD MSRP: $219.99*; $289.99* SKU 9449581	Flash	16GB; 32GB	4,000; 8,000	Both	Black, silver	33 hours

*Prices listed in this issue are for general reference and may vary from retailer pricing.

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Which GPS Device Is Right For You?

One of the hottest CE devices around right now is a GPS, and what a useful device it is, too. Here, we compare some models available on today's market. All of these units come with maps already loaded, and you can purchase additional maps, as well.

	Screen size; Dimensions	Text-to-speech; Traffic receiver	Preloaded maps	WAAS	Bluetooth; MP3 playback	Included charging adapters
What It Means	The diagonal measurement of the screen; height x width x depth	Unit calls out specific street names; unit receives traffic updates and re-routes accordingly	The regional maps that come included with the GPS unit	A satellite and ground station system that gives exceptional GPS accuracy	Some units communicate wirelessly with other Bluetooth devices or play MP3s	AC adapters plug into the wall; DC adapters plug into your car's cigarette lighter
Insignia NS-NAV01 MSRP: $99.99* SKU 9351603	4.3 inches; 3.2x4.7x0.6 inches	Yes; No	Entire U.S.	Yes	No; Yes	DC adapter
TomTom ONE 140·S MSRP: $149.95* SKU 9263254	3.5 inches; 3x3.6x0.8 inches	Yes; Yes (with optional traffic receiver)	Entire U.S. (including Puerto Rico) and Canada	No	No; No	DC adapter
Garmin nüvi 255W MSRP: $179.99* SKU 9252872	4.3 inches; 2.9x4.8x0.8 inches	Yes; No	Entire U.S. (including Puerto Rico) and Canada	No	No; No	DC adapter
Magellan RoadMate 1445T MSRP: $199.99* SKU 9536424	4.3 inches; 4.6x3.3x0.7 inches	Yes; Yes	Entire U.S. (including Puerto Rico) and Canada	Yes	No; No	DC adapter
TomTom XXL 540·S MSRP: $299.95* SKU 9555037	5 inches; 3.2x5.2x1 inches	Yes; Yes (with optional traffic receiver)	Entire U.S. (including Puerto Rico) and Canada	No	No; No	DC adapter
Magellan RoadMate 1700 MSRP: $299.99* SKU 9464153	7 inches; 4.2x7.5x0.6 inches	Yes; No	Entire U.S. (including Puerto Rico) and Canada	Yes	No; No	DC adapter
Insignia NS-CNV20 MSRP: $349.99* SKU 8947312	4.3 inches; 3.2x4x0.9 inches	Yes; Yes	Entire U.S.	Yes	Yes; No	DC adapter; AC adapter
Garmin nüvi 1690 MSRP: $449.99* SKU 9539298	4.3 inches; 3.1x4.9x0.8 inches	Yes; Yes	Entire U.S. (including Puerto Rico) and Canada	Yes	Yes; No	DC adapter

*Prices listed in this issue are for general reference and may vary from retailer pricing.

PORTABLE DEVICES

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NOTEWORTHY

Accessories & Services

No matter where you go, a wireless device can add enjoyment to your journey. To make sure you are taking full advantage of the capabilities your wireless devices offer, check your local CE retailer for accessories that can enhance your mobile experiences. We've listed our favorites below. **FG**

GPS CHARGERS
- Make sure your travel companion always has a full battery
- If you do run out of battery, charge your GPS with an adapter; these can plug into a wall, PC, or car's DC outlet

MP3 PLAYER CASES
- Protect your MP3 player from bumps and scratches
- Quickly access your player's functions with a clip
- Keep your player out of your way with an armband

GPS MOUNTS
- Mounts can be placed on a car dash or stuck to a windshield to be within reach

MP3 PLAYER EARPHONES
- Match earphones to your needs: If you don't want anything bulky, opt for earbuds that fit inside your ear; to hear every musical detail, try headphones that cover the ear completely
- Listen to your music without the interference of background noise with earphones that offer a noise-canceling feature

CELL PHONE CHARGERS & BATTERIES
- Keep your phone charged no matter where you are; adapters for your cell phone let you use solar power, your car's DC outlet, wall power, or your computer to charge your phone
- Be prepared for emergencies with extra cell phone batteries

MP3 PLAYER DOCKS & SPEAKERS
- Portable speakers let you play music for a group; some include radios and can also play CDs
- With a portable dock, you can recharge your player's battery as you listen to music
- Play your music through car speakers using an FM transmitter

CELL PHONE CASES
- Safeguard your phone from wear and tear with a case
- Universal cases fit most sizes of cell phones; some of these will include clips and wrist straps for portability and accessibility
- Fitted cases specifically fit your phone's model type; these can be hard acrylic casings, rubber sleeves, or leather pouches
- Avoid getting scratches and fingerprints on your phone's screen with stick-on or hard, clear screen protectors

CELL PHONE HEADSETS
- Keep your hands free while still being able to use your phone
- Link compatible cell phones to a Bluetooth headset to make or take calls without a tangled mess of cables
- Use a headset that offers noise-canceling capabilities to ensure you don't miss any of your conversation

MOBILE SERVICES
Whether your wireless device is brand-new or nearing the end of its life span, your local CE retailer offers services to help you take care of all of your wireless device's needs.
- Protection plans for GPSes, MP3 players, and cell phones
- Phone and battery recycling
- GPS setup and deck installation
- MP3 vehicle integration
- MP3 player setup and training
- Cell phone repair services and loaner phones

HOW TO BUY
DJ Mixing Equipment
Mix Up The Dance Floor

Whether you're an amateur DJ shopping for new equipment or already spinning for a large club crowd, you will need the right hardware to get dancers grooving on the floor. There are multiple options you can use to keep the music going, such as a mixing board, digital or analog turntable, or mixing software.

Mixing On Your Own

Essentially, a mixer functions as an audio control board with knobs and faders that adjust the volume and tone of corresponding audio components and lets you "mix up" audio tracks to control the audio that a dance crowd hears. A DJ uses a mixer to transition between two tracks from different sources (connected devices) with what is called a crossfader. Audio inputs (CD player, iPod, etc.) are assigned to particular channels on the mixer, which is why you must use the crossfader to choose and switch between channels.

The difference between many mixers is the extent of their features, whether they're outfitted with multiple faders, built-in mixing presets, or included

sounds. If you're interested in mastering the tactile controls of a mixer, such as the equalizer (balances sound levels), gain (stabilizes sound output), or volume faders, look for a model that features an ergonomic design with

switches and turntables that can be easily manipulated.

Turntables

You can also play and mix your songs using an analog turntable (for original vinyl) or a digital turntable (for digital music file support and connectivity).

With a digital turntable, you can scratch and record tracks as they play on your turntable deck. If you want to preserve the songs on vinyl, look for a model that features USB connectivity so you can transfer the songs as digital files to your PC.

Software Packages

To get the total digital DJ experience, shop for an advanced DJing package that includes mixing hardware (crossfaders, knobs, and scratch wheels), support for multiple audio file types (MP3, WAV, AAC, etc.), and USB connectivity. DJing software is no less important, especially for those who are more adept at using PC programs. For DJs working primarily on a PC, recording software with DJ effects, internal mixers, and an on-screen interface will enhance your DJ-ing capabilities. Recording software also includes built-in instrumental presets, multitrack mixing capabilities, and customized sound sampling. Other mixing software can be used for applying beats and scratches as you loop and control your tracks. **FG**

BY JOANNA SAFFORD

eReader Content

Do More Than Just Read Books

eReader Content

When shopping for an eReader, make sure you know the type of content you want to read (just ebooks or ebooks and more). Next, determine the formats of the things you want to read, and then find out which eReaders support them. For example, the IREX digital reader ($599; www.irextechnologies.com) supports the industry standard ePub as well as PDF and more. If you're not sure what formats are supported by an eReader, you can ask a CE retailer associate for help in determining which device will fit your needs. FG

BY GWEN HURST ANDERSON

If you love books, then an eReader is right for you. An eReader is a handheld mobile device that lets you read electronic books, known as ebooks. This means you can have your favorite books with you while you're waiting at the doctor's office, flying home from vacation, or even reading in bed.

But did you know that most eReaders can display more than just ebooks? Depending on your eReader, you can access newspapers or magazines. Or, if you're a student or businessperson, you can read textbooks or trade publications. And, you can read PDF files and text documents with some eReaders.

Reading Material

To know what content you can access on your eReader, you need to know the most common formats available.

Ebooks generally use the ePub format, which many eReaders support. Often, you can download these from the eReader manufacturer's Web site, online bookstores, or even your local library's Web site. Most ePub-compatible eReaders also support PDF, which not only lets you read one of the most popular document formats used for personal or business use, but also lets you find free ebooks in the PDF format from sites such as Google.

HTML is the coding language used to create most Web pages. Ebooks saved in this format require a Web browser. If your eReader has Web access, you can read magazine and newspaper articles by going directly to the publisher's site. Also note that most eReaders support formats such as DOC (Word document), RTF (rich text format), and TXT (text), which allows you to download and read work documents when you're away from the office.

eReaders: There's More Than Meets The Eye

- eReaders can display more than ebooks.

- Most eReaders display ePub content, which can be downloaded from a manufacturer's site or from Web sites such as Barnes & Noble or Amazon.

- Many eReaders also display magazines, newspapers, textbooks, and text documents.

- Once you've determined what content you'd like to access on your eReader, look for a device that matches the formats you need.

FirstGlimpse

Gaming System Memory

Today's Consoles Store Far More Than Game Saves

In the past, it was simple. Buy a video-game console, grab some games, and you had a dedicated gaming box for the living room. Today's consoles do so much more than play video games, however, so storage memory is a real concern. You need space to store downloadable games, movies, and TV shows; space to store your music and photos; and space to store custom gamer profiles for everyone in the house. When comparing consoles and shopping for additional storage, it's important to understand the differences between internal and external storage.

Internal Storage

Most of the latest video-game consoles have some form of internal storage, ranging from relatively low-capacity solid-state memory chips to the same types of high-capacity hard drives found in home computers. These are useful for storing music, pictures, downloaded movies, and other multimedia locally on the machine, along with downloaded add-on content for games you own. If you want to store a lot of files on your actual console, be sure to look for one with a larger capacity.

Some game consoles let you watch DVDs or Blu-ray Discs via the console's optical drive without consuming any storage space. However, if you plan to use advanced Blu-ray Disc features, such as BD-Live, content is downloaded to your console and consumes varying amounts of space depending on what is downloaded. You can also download entire movies—even in high definition—and delete them when you are finished watching them, freeing up space for future rentals.

External Storage

If you want to be able to transfer your data from one place to another, some video-game consoles also accept external memory cards. These have a lower storage capacity than your console's internal memory but offer much more in terms of mobility. For example, you can use a memory card to store gamer profiles that can be used on a different console so you can take all of your settings and save games with you when you're on the road and not lose any progress.

Cover Your Bases

You can never have too much storage, so be sure to use a mix of internal and external storage for your consoles. That way, you can get the most out of multimedia features in your living room and can also use the external storage when you visit other people's living rooms. It's the best of both gaming worlds. **FG**

BY TRACY BAKER

Minding The Bytes

The amount of data a console or external memory card can store is printed on the packaging and listed in MB (megabytes) or GB (gigabytes), with larger numbers always being better. It takes 1,000MB to equal 1GB, and some consoles store hundreds of gigabytes of data out of the box—but how does that translate into real-world terms?

Games and movies. DVD-quality movies consume a few gigabytes per movie, and high-definition movies require several gigabytes of storage. Games and add-ons for disc-based games require anywhere from a few dozen MB to more than 1GB.

Gamer profiles. These generally take up only a few megabytes of space unless you have a lot of games that everyone plays, in which case multiple saved games can take up more room than usual.

MP3s. A typical high-quality, three-minute track requires 3 to 5MB of storage,

Digital photos. Storage requirements vary wildly depending on the specifications of your camera and the photo settings you use, but you can right-click any picture you have saved on your computer, click Properties, and look at the file size to get an approximation of how many of them you can store per gigabyte.
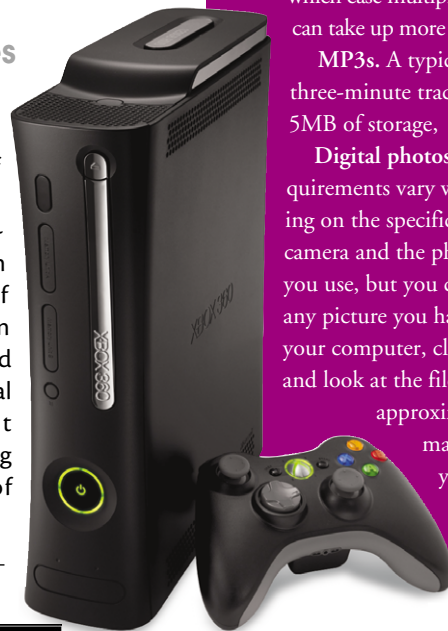
FirstGlimpse

Essential THINGS TO KNOW
Kids' Learning Systems

Q Are there kids' learning products for different age ranges?

A Yes. You'll typically find systems for kids ages 2 to 4, 4 to 8, and 6 to 10 at your local CE retailer.

Q How can a particular system cover such a wide age range?

A Each system has many compatible software titles designed for kids of varying ages. Some titles are also available in different stages, so your child can move to more difficult levels of learning after they master easier levels.

Q There seem to be lots of games for these, so why are they called learning systems?

A Most software titles disguise teaching with gameplay, so kids learn as they have fun.

Q How difficult are these for children to use?

A Most learning systems have minimal buttons and a touchscreen that offers a customized, easy-to-navigate interface for each software title. Products for younger children also use minimal or no text so that reading is not required.

Q How do the reading systems work?

A Reading systems for toddlers read the pages to them and let them interact with pictures and other elements on a page. The reading systems for older kids read entire books and also let children tap any word with the included pen to have it read to them so they can get help when reading by themselves.

Q If a new learning system comes out later, will all the cartridges I buy now become obsolete?

A There are no guarantees, but newer models are often backward-compatible with older games. However, the latest games might not look as good and could have fewer options when played on older hardware.

Q Do I need a PC to use any of these systems?

A No, although many systems can interact with a PC to let children customize content, such as in-game characters.

**Q** Do I need Internet access to use any of these systems?

A It isn't a requirement, but a PC with Internet access can complement most systems. Kids can download new content for software titles, and parents can use Web services to check the progress their children have made.

Q Do I need to worry about batteries?

A Most learning systems are portable, so you will need batteries. Check the packaging to see what type is necessary and whether batteries are included.

Q What accessories should I consider?

A A storage case is excellent for keeping the system and software cartridges organized. Some systems also have recharging stations or AC adapters available that can help you avoid constant requests for new batteries.
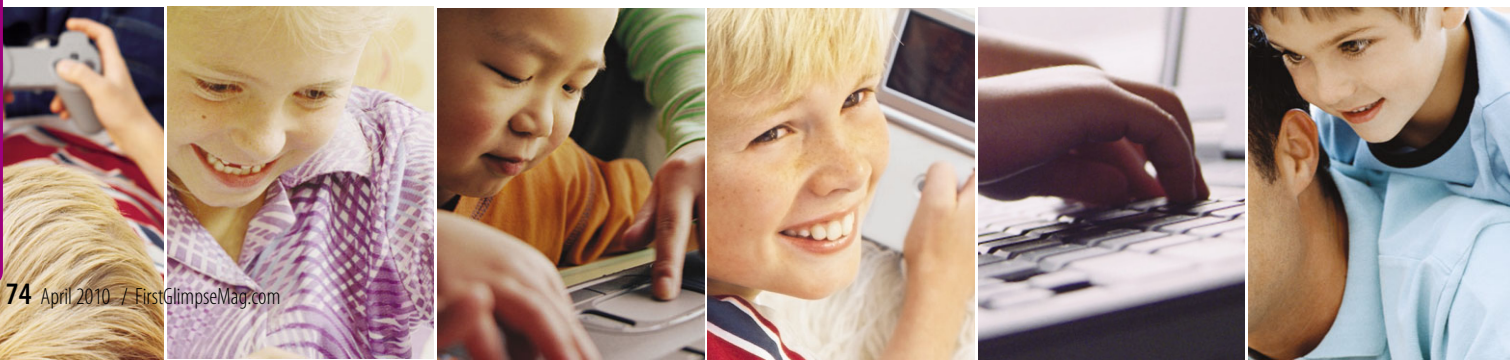
ESRB Game
Ratings & Descriptions
Find Material That's Appropriate For Your Kids

ESRB (Entertainment Software Rating Board) Ratings

In order for parents to select gaming software appropriate for their children, ESRB (www.esrb.org) ratings are listed on the front and back of most game packages to provide concise and impartial details about a title's content.

Early Childhood. Titles with this rating have content that may be suitable for children ages three and older. These software titles contain no material that parents would find inappropriate.

Everyone. Titles with this rating have content that may be suitable for children ages six and older. Games in this category may contain minimal cartoon, fantasy, or mild violence and infrequent use of mild language.

Everyone 10+. Titles with this rating have content that may be suitable for children ages 10 and older. Games in this category may contain more cartoon, fantasy, or mild violence and language as well as minimal suggestive themes.

Teen. Titles with this rating have content that may be suitable for children ages 13 and older. Titles in this category may contain violence, suggestive themes, crude humor, minimal blood, simulated gambling, or infrequent use of strong language.

Mature. Titles with this rating have content that may be suitable for persons ages 17 and older. Games in this category may contain intense violence, blood and gore, sexual content, or strong language.

Adults Only. Titles with this rating have content that is only suitable for persons 18 years and older. Games in this category may include prolonged scenes of intense violence, graphic sexual content, or nudity.

For additional information, ESRB ratings on the back of game packages include content descriptions and depictions.

Gaming Tips For Parents

Aside from checking a game's ESRB ratings, there are other ways you can ensure the games your youngsters are playing are age-appropriate.

- Carefully look at everything on a title's packaging, including the game graphics.

- Find game reviews, screen shots, or demos to get a better idea of a game's content.

- If available, use the game's parental controls to restrict inappropriate content.

- Learn about games by talking to other parents and older children who are familiar with or have played certain titles.

- Participate in your children's gaming and discuss their games as much as possible.

- Be aware of nonrated ESRB material a game may contain. "Mods" are program downloads that can alter a game's content, and online games often have live player chats as well as other user-generated content.

Lord Of The Rings Trilogy
Rating: PG-13 • **Format:** Blu-ray Disc
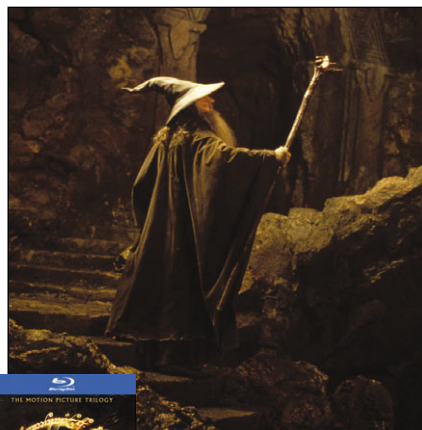
RELEASE DATE:
4/6/2010

MSRP: $99.98*
SKU: 9350436

Pirate Radio
Rating: R • **Format:** Blu-ray Disc

RELEASE DATE:
4/13/2010

MSRP: $36.98*
SKU: 9774505

The Lovely Bones
Rating: PG-13 • **Format:** Blu-ray Disc

RELEASE DATE:
4/20/2010

MSRP: $39.99*
SKU: 18464959

This Month's Blu-ray Disc Releases

■ April 6 to 12

"Bad Lieutenant: Port Of Call New Orleans" • $29.97* • SKU: 9798168

"Battlestar Galactica: Complete Series" • $244.99* • SKU: 9830987

"Battlestar Galactica: Season 2" • $89.99* • SKU: 9830896

"Brothers Five" • $19.98* • SKU: 18430353

"Cocoon" • $24.99* • SKU: 9759424

"Dolan's Cadillac" • $24.98* • SKU: 18402004

"Dreamscape" • $24.98* • SKU: 18420738

"Jade" • $17.99* • SKU: 9807907

"Lord Of The Rings Trilogy" • $99.98* • SKU: 9350436

"Lords Of Dogtown" • $24.95* • SKU: 18413929

"National Geographic: Canyonlands" • $29.99* • SKU: 18411533

"Poseidon" • $24.99* • SKU: 9820699

"The Delightful Forest" • $19.98* • SKU: 18430404

"The Flight Of The Intruder" • $17.99* • SKU: 9835337

"The Heroic Ones" • $19.98* • SKU: 18430371

"The Natural" • $24.95* • SKU: 8249335

"The Protector" • $14.99* • SKU: 9842062

"The Relic" • $17.99* • SKU: 9807916

"The Thomas Crown Affair" • $24.99* • SKU: 9759203

"Yosemite National Park" • $24.98* • SKU: 18420756

■ April 13 to 19

"A Nightmare On Elm Street" • $24.99* • SKU: 9772813

"Apollo 13" • $24.99* • SKU: 9831021

"Babylon A.D." • $39.99* • SKU: 18492166

"Die Hard" • $29.99* • SKU: 18492005

"Eragon" • $24.99* • SKU: 18491998

"Fantastic Four" • $24.99* • SKU: 18492078

"Fantastic Four: Rise Of The Silver Surfer" • $34.98* • SKU: 18492148

"Fight Club" • $34.98* • SKU: 18491889

"Gone With The Wind" • $49.99* • SKU: 9772759

"Hitman" • $39.99* • SKU: 18491843

"I Robot" • $29.99* • SKU: 18491834

"Independence Day" • $34.98* • SKU: 18491816

"Jumper" • $29.99* • SKU: 18491798

"Kingdom Of Heaven" • $29.99* • SKU: 18491752

"Live Free Or Die Hard" • $34.98* • SKU: 18491743

"Master & Commander: The Far Side Of The World" • $29.99* • SKU: 18491582

"Mr. & Mrs. Smith" • $34.98* • SKU: 18492227

"Pirate Radio" • $36.98* • SKU: 9774505

"The Day After Tomorrow" • $34.98* • SKU: 18492069

*Prices listed in this issue are for general reference and may vary from retailer pricing.

The Young Victoria
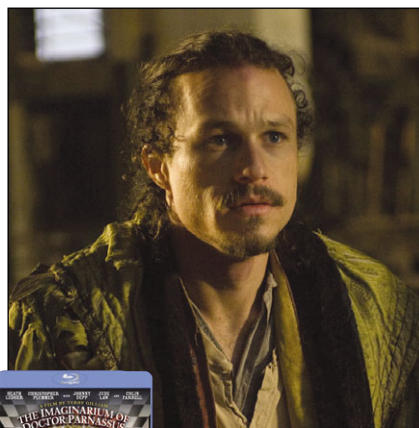
Rating: PG • **Format:** Blu-ray Disc

RELEASE DATE:
4/20/2010

MSRP: $34.95*
SKU: 9829266

Imaginarium Of Doctor Parnassus

Rating: PG-13 • **Format:** Blu-ray Disc

RELEASE DATE:
4/27/2010

MSRP: $34.95*
SKU: 9829293

It's Complicated

Rating: R • **Format:** Blu-ray Disc

RELEASE DATE:
4/27/2010

MSRP: $29.99*
SKU: 9830932

"The Slammin' Salmon" • $24.99* • SKU: 9829336
"X-Men" • $34.98* • SKU: 18492651
"X-Men: The Last Stand" • $34.98* • SKU: 18492397

■ April 20 to 26

"44 Inch Chest" • $35.98* • SKU: 18471961
"A Fork In The Road" • $24.98* • SKU: 18430238
"Battleship Potemkin" • $34.95* • SKU: 18430025
"Best Of Travel: Australia & New Zealand" • $34.99* •
SKU: 18440759
"Cheech & Chong's Hey Watch This!" • $19.99* • SKU: 9841955
"Earth Days" • $29.99* • SKU: 18389982
"Fist of Legend " • $14.99* • SKU: 9841655
"My Life To Live" • $29.90* • SKU: 9843547
"Scenic Walks Around The World: Historic Pathways" • $17.99* •
SKU: 9824831
"Scenic Walks Around The World: Our Dramatic Planet" •
$17.99* • SKU: 9824868
"Summer Hours" • $29.99* • SKU: 9843486
"The Basketball Diaries" • $24.99* • SKU: 9838843
"The Lovely Bones" • $39.99* • SKU: 18464959

"The Telling" • $24.98* • SKU: 18411481
"The Young Victoria" • $34.95* • SKU: 9829266

■ April 27 to May 3

"Armageddon" • $24.99* • SKU: 9824191
"Celine: Through The Eyes Of The World" • $23.99* •
SKU: 9859772
"Dark Nature" • $19.95* • SKU: 18417033
"Disgrace" • $35.98* • SKU: 18420461
"District 13: Ultimatum" • $24.99* • SKU: 9782913
"Dune" • $24.99* • SKU: 9830969
"Elizabeth" • $24.99* • SKU: 9831049
"Elizabeth: The Golden Age" • $24.99* • SKU: 9830923
"Five Minutes Of Heaven" • $19.99* • SKU: 9798061
"It's Complicated" • $29.99* • SKU: 9830932
"La Bayadère" • $39.99* • SKU: 18432005
"Out Of Africa" • $24.99* • SKU: 9830996
"Romeo & Juliet" • $34.99* • SKU: 18432014
"The Buddha" • $29.99* • SKU: 18396821
"The Imaginarium of Doctor Parnassus" • $34.95* • SKU: 9829293
"Tombstone" • $24.99* • SKU: 9824261

FirstGlimpse

Which Gaming System Is Best For You?

Game consoles and portable devices are no longer limited to gameplay. They can also access the Internet, download media, and play your favorite DVDs or CDs. To help you find a gaming device that will suit you well, here's a comparison of the most popular selections you can find at your local CE retailer.

		Hard drive size	Compatible memory cards	Optical drive	Video resolution output	Ports
	What It Means	How much data the system can hold	Cards that will let you save and off-load data, such as game saves or personal media	Aside from game discs, other play-able media formats	Highest number of video pixels that are sent to a TV or portable console screen	Hookups for controllers as well as video and audio outputs
Console Devices	**Sony PlayStation 3** MSRP: $349.99* SKU 9611611	250GB 2.5-inch Serial ATA	PlayStation and PlayStation 2 cards with optional USB memory card adapter	CD, DVD, BD	1,920 x 1,080	1 A/V, 1 Ethernet, 1 HDMI, 1 optical digital audio, 2 USB
	Nintendo Wii MSRP: $199.99* SKU 8008559	512MB	SD/Nintendo GameCube Memory Card	Can only play game titles	720 x 480	4 controller, 1 Component, 1 Composite, 1 S-Video, 2 USB
	Microsoft Xbox 360 Elite MSRP: $299.99* SKU 9460763	120GB	Xbox 360 Memory Unit	CD-RW, DVD-RW, and more	1,920 x 1,080	1 A/V, 1 Ethernet, 2 memory, 1 HDMI, 3 USB
Portable Devices	**Nintendo DSi** MSRP: $169.99* SKU 9249725 (blue)	256MB	SD	None	Dual 256 x 192	1 headphone, 1 microphone
	Nintendo DSi XL MSRP: $189.99* SKU 9760166	256MB	SD	None	Dual 256 x 192	1 headphone, 1 microphone
	Sony PSP go MSRP: $249.99* SKU 9459659	16GB flash memory	Memory Stick Micro	None; download to internal and removable memory only	480 x 272	1 USB, 1 headphone
	Sony PlayStation Portable 3000 MSRP: $169.99* SKU 9175082	64MB	Memory Stick Duo/Memory Stick Duo	UMD (Universal Media Disc)	480 x 272	1 video out/ headset, 1 USB, 1 DC out

*Prices listed in this issue are for general reference and may vary from retailer pricing.

FirstGlimpse

Online community	Wi-Fi access; Media streaming	Parental controls	Compatible game formats	Included accessories & services	Available accessories	Controllers	Perfect for
Web site membership for downloads, upgrades, and more	Access the Internet without a cable hookup; Send and receive media wirelessly	Help parents decide what content their kids can or cannot access	Game titles that can be played on the game system	Accessories included with the console	Extras that can help enhance your gameplay	Included controllers; wired/wireless controller compatibility	Who can benefit from the special features the gaming system offers
Yes, free PlayStation Network membership	Yes, 802.11b/g; Yes	Included; Options available for PS3 games, BDs, DVDs, and Internet	Sony PlayStation 3 titles and select PlayStation titles	DualShock 3 wireless controller, USB cable, PlayStation Network membership, A/V cable	Blu-ray remote, Bluetooth headset, memory card adapter, wireless keypad, cables	Includes 1 DualShock 3 wireless controller; wireless	Someone who wants the value of a full gaming system with a BD player and media streaming
Nintendo Wi-Fi Connection	Yes, 802.11b/g; Netflix streaming available this spring	Included; Options available for Wii titles, online features and downloads, and more	Nintendo GameCube and Wii titles	Wii remote and nunchuck, sensor bar, Wii Sports game, console stand, A/V cable, adapter	Wireless Wii remote, wheel, classic (wired) controllers, wireless sensor bar	Includes 1 wireless Wii remote and nunchuck; Both (some titles require a wired remote)	Gamers of any age who want a unique wireless gaming experience that requires little gaming knowledge
Yes; free Silver membership to Xbox Live and free Gold membership for one month	Available with optional networking adapter accessory; Yes	Included; Options available for Xbox Elite console and Xbox Live	All Xbox 360 games and more than 300 Xbox games	Wireless controller, headset, A/V cable, network cable, Netflix trial	HDMI cable, Xbox 360 hard drive, universal media remote, networking adapter	Includes 1 wireless controller; wireless	Those who want to play games in HD with full theatrical sound and need a console with plenty of hard drive space
Nintendo Wi-Fi Connection	Yes; Yes	Included; Available for Nintendo DSi content	Nintendo DSi and Nintendo DS titles	AC adapter, 2 styli	Audio headset, battery power pack, screen protectors, carrying cases, styli	N/A	Users who want a handheld gaming system that lets them take, personalize, and share photos
Nintendo Wi-Fi Connection	Yes; Yes	Included; Available for DSi software, DSi Browser, DSi shop, and more	N/A	Rechargeable battery, AC adapter, stylus, and four preinstalled titles	Cases, adapters, headphones, full-size stylus	N/A	Those who want a handheld gaming system with a large screen, better-suited for social gaming
Yes, PlayStation Network	Yes, 802.11b; Yes	Included	Available for download from PlayStation store	AC adapter, USB cable, Media Go software, Rock Band Unplugged Lite voucher	Protective screen film, cradle, headphones, memory cards, cases	N/A	Those who need a bigger screen for their gaming, Internet, and media entertainment
Yes, free PlayStation Network membership	Yes, 802.11b; No	Included; Options available for UMDs, Internet, and video downloads	PlayStation Portable titles	AC adapter, AC power cord, battery pack, video rental through PlayStation Network	Battery charger, travel case, memory cards, A/V cable, AC adapter, car adapter	N/A	Those who want to enjoy gaming as well as movies, photos, and music when they're on the go

NOTEWORTHY

Accessories & Services

The gaming experience goes beyond the game itself—you need the right console peripherals and the best just-in-case services. We've compiled a list of some of the must-have accessories that will only enhance your gameplay, so be sure to remember these items on the next trip to your local CE retailer. **FG**

RACING WHEELS
- A gaming steering wheel puts you in the driver's seat of a virtual race
- A comfortable, accurate wheel will give you more control with turns, braking, and acceleration
- Be sure to purchase a racing wheel that's compatible with your specific gaming console

USB DEVICES
- A USB media hub will let you connect other USB devices (including MP3 players and portable gaming devices) to your game console
- Use a USB rechargeable battery pack to charge the Li-Ion battery for guitar controllers

EXTERNAL MEMORY
- External hard drives, USB drives, or memory cards back up your in-progress games
- When additional memory is connected to live (online) games, you can save gaming content and downloads
- The more memory you have, the more games and downloads you'll be able to store

WIRELESS CONTROLLER
- Bluetooth technology lets you play while also having the freedom to move around
- Some controllers use traditional AAA batteries to sustain your playing time
- Find the best design for your grip: ergonomic or traditional

GAMING KEYBOARD
- Adding a keyboard can help game efficiency—type in text codes and chat with other players quickly
- Look for a model with a touchpad so you can easily scroll around the game display
- Models that offer hotkeys will enable you to quickly perform gaming tasks, such as gameplay actions

MUSIC CONTROLLER ACCESSORIES
- Add a heavy-duty bass pedal to your gaming drum set to replace your standard pedal
- A tripod microphone stand will make your song-based games more true-to-life
- Extra cymbals for your rock drum kit will give you more freedom to express musical ability

HEADSETS
- Use a hands-free headset to enhance your gaming experience by planning strategies aloud with your team
- A Bluetooth 2.0 headset is designed to communicate with your gaming console; Bluetooth headsets will be compatible with most game consoles
- Consider noise-canceling headsets with echo-minimizing microphones so you can hear and be heard clearly

GAMING SERVICES
Your local CE retailer provides some helpful services, both in-home and in-store, to enhance your gaming console. Specifically, the professionals can set up online connections, install system updates, and transfer data to a gaming storage device.

- Online account configuration
- Console system updates
- Stream media from a PC to a gaming console
- Connect a console to a home-theater system

MULTI-CORE PROCESSORS
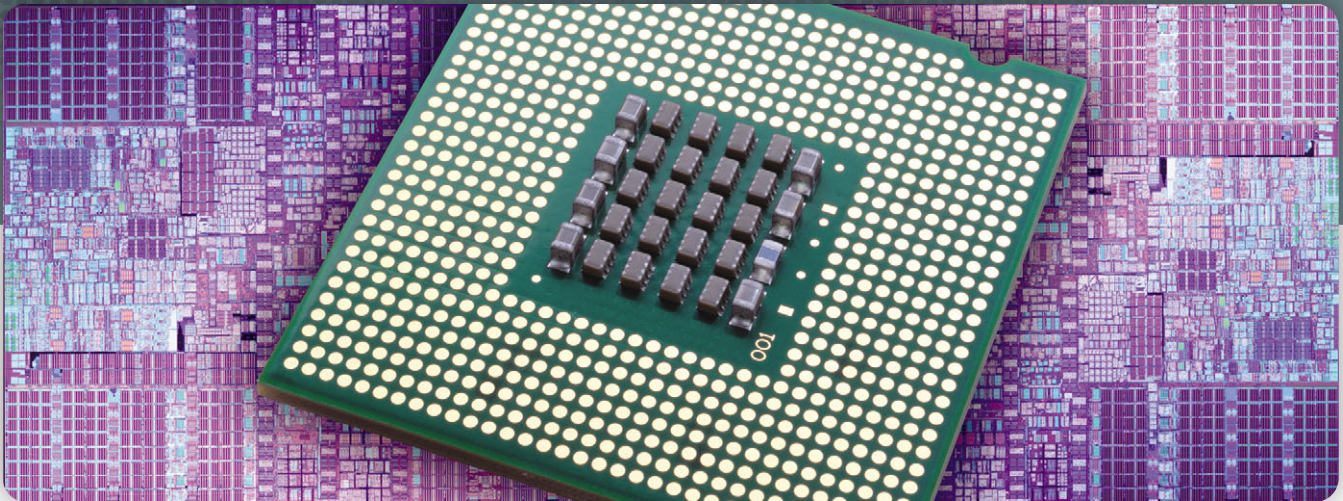
Most modern PCs let you edit photos, create a home movie, and play 3D games. The reason: a processor that acts like a brain processes your computer's data very quickly—it barely even breaks a sweat! Yet, thanks to a concept called multi-core processing, the newest PCs are much smarter than their predecessors.

Multi-Core vs. Single Core

A processor is like a brain that juggles computing tasks. For example, it's responsible for calculating the complex equations in a spreadsheet program. A multi-core processor is like having several brains inside one computer. There are multiple cores, such as dual- and quad-core processors, that can process information independently of one another.

Let's say you took a birthday photo with a digital camera, and you want to brighten up the shot because it's too dark. Yet, at the same birthday party, you also shot a home movie with your video camera and you want to convert your footage from one file format to another. With a multi-core processor, you can do both tasks at once.

In the past, computers just had one core. They had to think about each of these tasks and line them up like ducks on a plank. Occasionally, computers like this would slow down because they would work on one task, then switch over to another task and get confused about what to do next. With a multi-core processor, a computer can handle more than one activity at the same time, as each core can perform separate functions.

Not only can the latest multi-core processors handle more than one task at a time, but they can also use an individual core to process two tasks at the same time. For example, a processor with four cores (which is called a quad core) can tackle up to eight tasks at once. In the future, it won't be

FirstGlimpse

Intel's Multi-Core Processors

In order to help you understand which processor best fits your needs, Intel (www.intel.com) changed its multi-core processor line-up. It offers the i3, i5, and i7 Core processors, and these cover the entry-level, mid-range, and high-end segments.

The Intel Core i3 and i5 both have two cores and can handle up to two tasks per core, whereas the Core i7 has four cores and can process eight tasks at once (two per core). The main difference among these three multi-core processors is the speed of the chip, the extra memory available for speeding up calculations, and—of course—the price. In essence, the Core i3 is designed for people who do not perform heavy video and photography work. The Core i5 is great for these tasks but also adds Intel's Turbo Boost Technology, which allows the processor to automatically throttle its processing speed. The Core i7 is the king of these processors, offering twice as many cores and lightning-fast processing speeds with Intel's Turbo Boost Technology. ●

uncommon to see processors that can run 12, 24, or even up to 80 cores, bringing computers to unprecedented speeds.

Multi-core processors are well-suited for digital media streaming, which lets you send movies, photos, or music files over a home network from one room to another, because they can handle multiple tasks at once without slowing down your PC. For instance, you might download a movie with your home office PC, but you can stream it to your video game console in the living room so that you can kick back on the couch for entertainment. Another advantage of using a PC with a multi-core processor is you can transmit movies (from the office to the living room) and still use the PC for other tasks, such as Web browsing, photo or video editing, playing games, or word processing. This allows you to get more work done all at the same time.

There's one additional technical benefit, as well. In the past, when you'd shop for a new computer, you would have to know how many processor cores were required by the applications you intended to use, such as photo- and video-editing programs. However, today's multi-core processors can automatically detect how many cores an application needs to use and makes them run faster than usual. Or, if your application benefits from running all four cores, the processor will use them automatically. There's even a power-savings benefit here: Multi-core processors can shut down cores that are not in use and use less energy.

Because multi-core processors can juggle a lot of information, they prove to be extremely beneficial for those who plan to use their computers as workhorses. For anyone who plans to perform multiple computer tasks at the same time, these faster and smarter processors will let you enjoy using your computer without any slowdowns. FG

BY JOHN BRANDON

START YOUR
Spring Cleaning

Now that winter is finally behind us, it's time to do some spring cleaning. Luckily, your CE retailer has a variety of products that can help you keep your consumer electronics, and your home, clean and organized.

Shark 2-in-1 Vacuum

This cordless, bagless vacuum can be used on both carpet and bare floors. It's lightweight enough to use in every room of your house. **$69.99**

Rocketfish LCD Cleaning Kit

Enhance your viewing experience by keeping the screens on your CE devices clean and free from dust. This cleaning kit can be used on LCD or plasma HDTVs, laptops, computer monitors, and camera and camcorder screens. **$21.99**

Dynex Duster

Remove dust and dirt from your keyboard with a can of compressed gas. **$8.99**

Atlantic Multimedia Storage

This shelving unit can keep all of your CDs, DVDs, VHS tapes, and other media organized and accessible. **$151.99**

Memorex Laser Lens Cleaner

Improve your DVD or CD player's performance by removing dust from its lens. The disc also features seven sound optimization tools to improve audio quality. **$9.99**

Since 1979, Sandhills Publishing has produced publications covering technology beginning with the introduction of *Processor*. Over the years, the company has developed a complete line of computing publications, encompassing *Smart Computing*, *PC Today*, *Computer Power User*, and *First Glimpse*. Our plain-English approach has served audiences well for 30 years, ensuring they receive accurate and unbiased technology information to meet their needs.

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